



COUNTY BOROUGH OF DEVONPORT.

Health Report

FOR THE YEAR 1909,

TOGETHER WITH THE

R E P O R T

ON THE

Medical Inspection of School Children

BY

O. HALL,

D.P.H., F.C.S., L.R.C.P., L.R.C.S. ETC.

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AND

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COUNTY BOROUGH OF DEVONPORT.

SANITARY COMMITTEE.

THE MAYOR—Mr. Alderman LITTLETON, J.P.

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Deputy Chairman—*Mr. Councillor COOMBS.

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STAFF OF THE PUBLIC HEALTH DEPARTMENT.

Medical Officer of Health—O. HALL, D.P.H., L.R.C.S., L.R.C.P.

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D.P.H., M.R.C.S., L.R.C.P.

Public Analyst—C. E. BEAN, F.R.C.S., F.I.C.

Matron of Borough Hospital—Miss BAKER.

Inspectors—

JOHN THORNING, Cert. Royal Sanitary Inst., Chief Sanitary
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G. T. GEATON, Cert. Royal Sanitary Inst.

W. S. NORTHMORE, Cert. Royal Sanitary Inst.

S. SKELTON.

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House Disinfectors—G. TRAFFORD, W. MCGINNES, and
W. HORNE.



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MUNICIPAL OFFICES,

DEVONPORT.

TO HIS WORSHIP

THE MAYOR, ALDERMEN AND COUNCILLORS

OF THE

COUNTY BOROUGH OF DEVONPORT.

GENTLEMEN,

I have the honour to present to you my Fifth Annual Report on the Health and Sanitary condition of the Borough.

In the main, I have followed the lines of previous reports, but certain subjects concerning which the L.G.B. desire precise information are specially dealt with.

A full account of the work carried out under the Administrative Provisions (Education) Act 1907, and under the Factories and Workshops Acts is, by the Board's request, also included.

The year has, in many respects, been a record one, the death-rate being the lowest in the history of the borough, while the Infantile Mortality rate shows a decline of 23·3 % on the average number of deaths under one year to 1000 births during the preceding ten years.

A still more satisfactory feature of the year is the decrease in the number of deaths from Tuberculosis, the death-rate being also the lowest on record.

The accompanying Table will show the relative proportion of deaths attributable to each of the various causes. There must always be a limit below which the mortality cannot fall, but this Table will show us that this limit has by no means yet been reached. Old age and certain other diseases in connection with the Cardiac and Respiratory Systems must always contribute a considerable and unavoidable proportion.

On the other hand an undue number of deaths are due to causes pre-eminently preventable, and it is to such causes our attention must be directed, if the death-rate, which for several years past has been declining so steadily is to decrease still further as the years advance.

I have to thank the Chairman and members of the Sanitary Committee for their support throughout the year, and I wish especially to acknowledge the assistance given in all departments of my work by Dr. W. St. C. McClure whose duties have been discharged with characteristic efficiency, enthusiasm, and thoroughness.

I am, Gentlemen,

Yours obediently,

O. HALL,

Medical Officer of Health.

Vital Statistics.

SUMMARY.

Population (Census 1901)	-	-	-	70,437
„ estimated by Registrar General	-	-	-	83,103
Area	-	-	-	3,176 acres
Density of Population <i>i.e.</i> , the number of persons per acre	-	-	-	26·16
Number of Inhabited Houses in the Borough last year	-	-	-	9,775
Number of houses built during the year	-	-	-	89
Rateable Value	-	-	-	£328,167
Borough Rate including Education Rate	-	-	-	2/-
Street Rate	-	-	-	2/-
General District Rate	-	-	-	1/4
Poor Rate	-	-	-	1/1
Births	-	-	-	2,163
Birth Rate per 1,000 living	-	-	-	26·1
Deaths	-	-	-	961
Death Rate per 1,000 living	-	-	-	11·5
Average for 10 years	-	-	-	14·7
Excess of Registered Births over Deaths	-	-	-	1,202
Death Rate from 7 principal Zymotic Diseases	-	-	-	1·1
Infantile Mortality or Deaths of Children under 1 year per 1,000 Births	-	-	-	95·2
Average for 10 years	-	-	-	125·2

Population.

The accurate calculation of the population becomes more difficult the further we advance in the decennial period since the Census enumeration of 1901. It is especially during the last few years of the decennium that the estimation is liable to be faulty, and since population forms the basis for all vital statistics, it is essential this estimation shall be as correct as possible.

In a seaport town like Devonport, the difficulties are increased and a quinquennial Census is most desirable, if these statistical uncertainties are to be minimised. The least unsatisfactory method available is that used by the Registrar General, who assumes that the same rate of increase will hold good as in the

previous intercensal period. On this assumption the population of Devonport in the middle of 1909 was 83,103, this being an increase of 1,578 over that of the preceding year.

The Area is 3,173 acres, exclusive of water.

Density of Population, *i.e.*, the number of persons to each acre is 26·16.

The number of Inhabited Houses in the Borough is 9,775.

Births and Birth-Rate.

The number of births registered during the year was 2,163, and is 98 more than 1908; of these 1,114 were males and 1,049 females. This gives a birth-rate of 26·1 per 1,000 living as compared with 25·6 for England and Wales. The natural increase or gain by excess of births over deaths was 1,202, as against 993 in 1908.

The method adopted in this report of expressing the birth-rate as the ratio to the total population at all ages is the one usually followed: the increase of population by births over deaths is thereby given. If it is desired to compare the relative productiveness of one district with another, this is not the most satisfactory standard by which to measure the birth-rate, because it does not take into account the age constitution of the population and especially of the female population of conceptive age. A preferable method would be to calculate the proportion of legitimate births per 1,000 married women between the ages of 15 and 45 years, and to adopt a similar method as regards illegitimate births per 1,000 unmarried and widowed persons between the same ages.

Death and Death-Rates.

There were 968 deaths from all causes registered during the year. This is equivalent to a rate of 11·6 per 1000 of the estimated population as compared with 13·4 in the preceding year, and is the lowest death-rate recorded in Devonport, which is eminently satisfactory. Of these deaths 491 were males, 477 females; 851 occurred in private houses, 40 in the Royal Albert Hospital, 64 in the Workhouse, and 13 in other Institutions. 23 were deaths of non-residents. If, therefore, we deduct these from the

whole and add 16 for deaths of residents outside the Borough we get a net total of 961 deaths which is equal to 11·5 per 1000.

Corrected death-rate.—The death-rate from all causes in this country is lower at ages between 5 years and 55 years than at other periods and is lower among females than among males. As the proportion of persons living at different age periods, and of males to females differs in various localities, it is necessary to make certain corrections if we desire to compare with accuracy the death rates of two or more districts. The factor of correction for Devonport is 1·0486 and the crude death-rate multiplied by this figure gives a corrected death rate of 12·05.

The Zymotic Death-Rate, *i.e.*, the death-rate from 7 principal Zymotic diseases (Small-pox, Measles, Scarlet Fever, Whooping, Diphtheria, or Membranous Croup, Enteric Fever, and Diarrhoea) was 1·1 per 1000.

Infantile Mortality.

This is measured by the proportion of deaths under one year to 1,000 births and amounted to 95·2 as compared with 116·7 in 1908 and further a decline of 30 on the average number of deaths at this age during the preceding ten years. The mortality in males was 126 and in females 80.

The Infantile Mortality rate is decidedly satisfactory, and is partly accounted for by the diminution of diarrhoeal diseases and bronchitis. The rate for England and Wales was 109 while in the 76 large towns it ranged from 72 to 159.

The measures employed to reduce Infantile Mortality during the past five years have been chiefly educational. Pamphlets on the feeding and care of infants have been published and distributed; the midwives, whose advice is frequently sought by the young untrained mothers in the rearing of their infants, have received instruction on the importance of breast feeding and protection of food from contamination while special efforts have been made to ensure the purity of the milk supply generally in the Borough.

I regret the Council have not sanctioned the appointment of a Health Visitor, and I trust this matter will again be considered in the near future.

TABLE I.

Distribution of Births.

DISTRICT.	1st quarter	2nd quarter	3rd quarter	4th quarter	Total.	Rate per 1000 of popula- tion (Census 1901).
Tamar - -	136	162	149	138	585	25·3
St. Aubyn - -	168	168	138	173	647	28·1
Stoke - - -	241	227	199	264	931	37·1

TABLE II.

Distribution of Deaths.

DISTRICT.	1st quarter	2nd quarter	3rd quarter	4th quarter	Total.	Rate per 1000 of popula- tion (Census 1901).
Tamar - -	74	58	43	63	238	10·3
St. Aubyn - -	84	63	71	67	285	12·4
Stoke - - -	132	92	91	107	422	17·2

TABLE III.

Vital Statistics of Whole District during 1909 and previous Years.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			Total Deaths registered in the District.				Total Deaths in Public Institutions in the District.	Deaths of Non-residents registered in Public Institutions in the District.	Deaths of Residents registered in Public Institutions beyond the District.	NETT DEATHS AT ALL AGES BELONGING TO THE DISTRICT.			
		Number.	Rate.	3	4	Under 1 year of age.		At all ages.				Number.	Rate.		
						Number.	Rate per 1000 births registered	Number.						Rate.	
															5	6	7	8
1	2														
1899	66960	1918	28·6	313	163·2	1198	17·8	82	—	—	1198	17·8	11	12	13
1900	68488	1938	28·2	321	165·6	1068	15·5	149	—	—	1068	15·5	—	1068	15·5
1901	70437	1962	27·8	289	146·2	1172	16·6	115	—	—	1172	16·6	—	1172	16·6
1902	72308	2091	28·9	254	122·4	1083	14·9	133	1	1	1082	14·9	—	1082	14·9
1903	73477	2055	27·9	154	74·0	1055	14·3	113	11	11	1044	14·2	—	1044	14·2
1904	75344	2222	29·4	256	115·2	1085	14·4	85	3	3	1082	14·4	—	1082	14·4
1905	76864	1824	23·7	248	135·9	1102	14·3	147	35	35	1067	13·8	—	1067	13·8
1906	78405	2135	27·3	238	111·4	1029	13·1	121	—	—	1029	13·1	—	1029	13·1
1907	79959	2186	27·3	226	103·2	1023	12·8	164	27	27	998	12·4	—	998	12·4
1908	81525	2065	25·3	241	116·7	1100	13·4	157	28	28	1072	13·1	—	1072	13·1
Averages for years 1899-1908	74326	2039	27·4	254	125·3	1091	14·7	122	17	17	1081	14·5	—	1081	14·5
1909	83103	2163	26·1	206	95·2	968	11·6	117	23	23	961	11·5	16	961	11·5

TABLE IV.—continued.

Wasting Diseases.	Premature Birth	...	30	3	...	3	36	3	2	1	...	...	...	...	...	...	42
	Congenital Defects	...	5	...	1	...	6	1	..	1	1	...	...	...	...	...	9
	Injury at Birth	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Want of Breast-milk, Starvation	...	...	...	3	...	3	...	...	1	...	...	...	...	...	...	8
	Atrophy. Debility, Marasmus	...	11	6	3	...	20	4	3	1	2	1	...	...	1	...	33
Tuber- culous Diseases.	Tuberculous Meningitis	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Tuberculous Peritonitis: Tabes Mesenterica	}	...	...	...	...	...	...	...	2	1	...	1	...	...	...	5
	Other Tuberculous Diseases		...	...	...	...	...	...	...	...	...	...	1	...	...	...	1
	Erysipelas	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
epi	Syphilis	...	1	...	1	...	2	...	...	...	...	...	...	...	...	...	2
	Rickets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Meningitis (<i>not Tuberculous</i>)	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1
	Convulsions	...	3	1	1	...	5	2	2	2	2	...	...	2	1	...	16
Other Causes.	Bronchitis	..	...	...	...	...	...	2	2	2	...	1	...	1	1	1	12
	Laryngitis	...	1	...	...	...	1	1	...	...	...	...	...	1	...	1	4
	Pneumonia	...	..	...	1	...	1	1	5	1	4	2	...	1	2	3	20
	Suffocation, overlaying	...	3	...	...	...	3	...	...	...	...	...	...	...	...	...	3
	Other Causes	...	2	2	..	...	4	1	...	1	...	1	...	...	1	...	9
			56	13	13	3	85	22	19	15	12	11	4	8	6	8	206

CAUSE OF DEATH.	Under 1 Year.		1 and under 5		5 and under 15		15 and under 25		25 and under 35		35 and under 45		45 and under 55		55 and under 65		65 and under 75		75 and upwards		All Ages TOTAL.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Other Infectious Diseases— <i>continued.</i>																						
Tetanus -	-	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
Actinomycosis -	-	
Syphilis—																					...	
Acquired -	-	
Congenital -	-	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Visceral -	-	
Gonorrhœal Infection -	-	
Tuberculosis—																						
Acute Miliary Tuberculosis -	-	1	...	1	6	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis of the Lymphatic System -	-	
Tuberculosis of the Lungs (Phthisis, Consumption)	-	1	13	9	8	6	8	4	3	7	3	1	2	...	2	...	...	...	65	

CAUSE OF DEATH.	Under 1 Year.		1 and under 5		5 and under 15		15 and under 25		25 and under 35		35 and under 45		45 and under 55		55 and under 65		65 and under 75		75 and upwards		All Ages Total.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Other Infectious Diseases—<i>contd.</i>																						
Tuberculosis—																						
Of the Alimentary Canal -	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Of the Liver -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Of the Brain and Spinal Cord -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Of the Genito urinary System -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Of the Mammary Gland -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Of the Circulatory System	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Peritoneum -	4	1	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	8
Meninges -	...	...	2	2	2	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	8
The Intoxications and Sunstroke.																						
Alcoholism—																						
Chronic Alcoholism -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2

CAUSE OF DEATH.	Under 1 Year.		1 and under 5		5 and under 15		15 and under 25		25 and under 35		35 and under 45		45 and under 55		55 and under 65		65 and under 75		75 and upwards		All Ages TOTAL.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
The Intoxications and Sunstroke — <i>continued.</i>																						
Alcoholism—																						
Delirium Tremens -	
Morphia Habit -	
Lead Poisoning -	1	...	...	...	...	...	...	...	...	...	...
Arsenical Poisoning -	
Ptomaine Poisoning -	
Meat Poisoning -	
Poisoning by Milk Products -	
Do. by Shell-fish and Fish	
Grain Poisoning -	
Sunstroke -	
Constitutional Diseases																						
Arthritis Deformans -	1	
Chronic Rheumatism -	6	

CAUSE OF DEATH.	Under 1 Year.		1 and under 5		5 and under 15		15 and under 25		25 and under 35		35 and under 45		45 and under 55		55 and under 65		65 and under 75		75 and upwards		All Ages TOTAL.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Constitutional Diseases— <i>continued.</i>																						
Muscular Rheumatism	-	
Gout -	-	
Diabetes Mellitus	-	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...
Diabetes Insipidus	-	
Rickets	-	
Obesity	-	
Diseases of the Digestive System.																						
Diseases of the Mouth—																						
Stomatitis	-	
Aphthous Stomatitis	-	
Ulcerative Stomatitis	-	
Parasitic Stomatitis	-	
(Thrush)	-	
Gangrenous Stomatitis	-	
Sarcoma of Jaw	-	1	2	...	3

CAUSE OF DEATH.	Under 1 Year.		1 and under 5		5 and under 15		15 and under 25		25 and under 35		35 and under 45		45 and under 55		55 and under 65		65 and under 75		75 and upwards		All Ages TOTAL.
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Diseases of the Digestive System — <i>continued.</i>																					
Diseases of the Intestines—																					
Miscellaneous Affections—																					
Dilatation of the Colon	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Intestinal Sand -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tabes Mesenterica -	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Diseases of the Liver—																					
Jaundice (Icterus) -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Icterus Neonatorum -	1	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
Acute Yellow Atrophy -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Affections of the Blood-vessels of the Liver -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of the Bile-passages and Gall-bladder -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholelithiasis -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of the Liver -	...	...	...	...	...	...	...	...	...	...	1	...	1	2	1	1	...	...	...	...	6
Abscess of the Liver -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
New Growths in the Liver -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	2

CAUSE OF DEATH.	Under 1 Year.		1 and under 5		5 and under 15		15 and under 25		25 and under 35		35 and under 45		45 and under 55		55 and under 65		65 and under 75		75 and upwards		All Ages TOTAL.
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Developmental Diseases— <i>continued.</i>																					
Spina-bifida -	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Other Congenital Defects -	3	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	7
Senility -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	4	13	33	53	104
Diseases of the Organs of Generation—																					
Ovarian Disease -	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2
Diseases of Uterus and Vagina (Carcinoma) -	...	...	...	...	...	...	...	...	...	1	3	...	6	...	1	...	3	...	...	...	14
Disorders of Menstruation	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Pelvic Abscess -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Perineal Abscess -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diseases of testes, penis, scrotum, bladder, etc.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	...	4
Diseases of Parturition—																					
Phlegmasia Alba Dolens -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Abortion, Miscarriage -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Mania -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

CAUSE OF DEATH.	Under 1 Year.		1 and under 5		5 and under 15		15 and under 25		25 and under 35		35 and under 45		45 and under 55		55 and under 65		65 and under 75		75 and upwards		All Ages TOTAL.	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Developmental Diseases--																						
continued.																						
Inquests - - -	5	7	2	3	...	...	2	...	4	2	3	...	1	...	2	4	3	4	...	2	44
Fractures - - -	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	2
Contusions - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Gunshot wounds - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cut, Stab - - -	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1
Burn, Scald - - -	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2
Poison - - -	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Drowning - - -	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1
Suffocation - - -	1	2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	5
Hanging - - -	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...	3
Other and Undefined Forms	1	3	2	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	...	1	11

TABLE VI.

Showing relative Proportion of Deaths from
Principal Diseases.

			Proportion per 1,000 Deaths from all Causes.	Rate per 1,000 Living.
Diseases of Respiratory System	...	...	113·22	1·28
Old Age	...	...	110·05	1·23
Tuberculosis (all forms)	...	...	100·52	1·14
Phthisis	...	...	(68·7)	(·78)
Premature Birth and Congenital Defects	...	...	99·47	1·12
Diseases of Heart	...	...	96·29	1·09
Diseases of Blood and Blood-Vessels	...	...	73·07	·83
Cancer	...	...	71·95	·82
Diseases of Nervous System	...	...	60·21	·68
Infectious Diseases	...	...	58·20	·66
Pneumonia	...	...	48·67	·55
Diarrhoea (all forms)	...	..	41·27	·46
Diseases of Digestive System	...	...	32·90	·37
Diseases of Urinary System	...	...	30·69	·34
Violence	...	...	26·45	·31
Other Causes	...	...	37·03	·62
All Causes	...	...	1000	11·50

TABLE VII.

GIVING NUMBER OF BIRTHS AND DEATHS OF
INFANTS UNDER ONE YEAR DURING 1909
AND 10 PREVIOUS YEARS.

Year.	No. of Births.	No. of Deaths.	Rate per 1000 Births Registered.
1899	1918	313	163·2
1900	1938	321	165·6
1901	1962	289	146·2
1902	2091	256	122·4
1903	2055	154	73·0
1904	2222	256	115·2
1905	1824	248	135·9
1906	2135	238	111·4
1907	2186	226	103·3
1908	2065	241	116·7
1909	2163	206	95·2

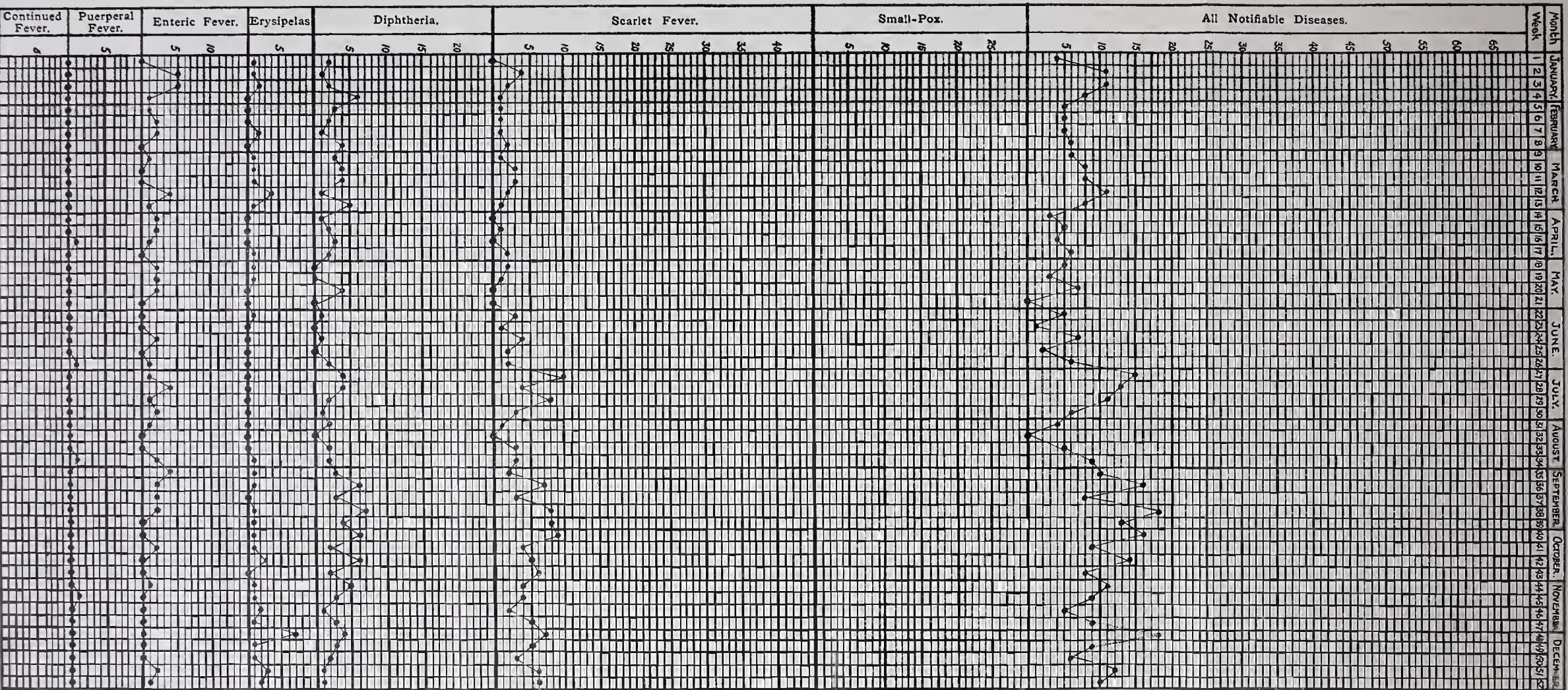
TABLE VIII.

COMPARATIVE TABLE,

Showing Birth Rate, Death Rate, and Analysis of Mortality in the 53 Weeks ended 2nd January, 1910.

Cities and Boroughs.	Birth Rate.	Death Rate.	Principal Zymotic Rate.	Deaths under 1 Year to 1000 Births.
76 Large Towns - -	25·7	14·7	1·42	118
London - - -	24·2	14	1·31	108
Liverpool - - -	31·1	19	2·11	144
Manchester - - -	27·8	17·9	1·81	134
Birmingham - - -	26·6	15·4	2·03	134
Leeds - - -	22·8	14·1	0·80	122
Sheffield - - -	28·2	15·1	1·78	118
Bristol - - -	22·6	12·7	0·87	100
Newcastle-on-Tyne -	27·3	14·8	1·22	119
Hull - - -	29·4	14·9	1·38	114
Nottingham - - -	25·7	16·3	1·67	150
Leicester . - -	21·9	12·9	1·22	127
Portsmouth - - -	27·2	14·2	1·42	96
Cardiff - - -	25·8	13·1	0·85	103
Bolton - - -	24·7	15·1	1·13	128
Sunderland - - -	29·3	16·9	1·98	135
Blackburn - - -	22·9	16·3	1·49	126
Derby - - -	24·9	13·4	1·26	123
Plymouth - - -	22·4	14·5	1·20	131
DEVONPORT - - -	26·1	11·5	1·1	95·2
Preston - - -	25·7	15·8	1·30	136

Chart showing
Weekly Notifications of Infectious Diseases.



Infectious Diseases (Notification) Act.

The following diseases are notifiable in the Borough :—

Small-Pox, Cholera, Diphtheria, Membranous Croup, Erysipelas, Scarlet Fever, Typhus, Typhoid, Relapsing, Continued and Puerperal Fevers.

The number of notifications received during the year was 414. Of these 8 were found on further examination to be suffering from disease of a non-infectious nature. Making the necessary corrections, the infectious diseases which occurred in the Borough were :—

Diphtheria	}	...	...	131
Membranous Croup				
Erysipelas ...	...	...	...	46
Scarlatina ...	...	...	...	164
Typhoid Fever	...	...	...	61
Puerperal Fever	...	...	...	4
Total				406

TABLE IX.
Cases of Infectious Disease notified during the year 1909.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.		
	At Ages—Years.							Tamar.	St. Aubyn	Stoke.
	At all Ages.	Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards			
Small Pox -	-	-	-	-	-	-	-	-	-	-
Cholera -	-	-	-	-	-	-	-	-	-	-
Diphtheria (including Membranous Croup -	-	2	45	67	8	10	-	25	47	60
Erysipelas -	132	-	2	3	5	27	9	15	13	18
Scarlet Fever -	46	2	56	97	6	7	-	65	24	79
Typhus Fever -	168	2	-	-	-	-	-	-	-	-
Enteric Fever -	-	-	3	17	18	26	-	15	13	36
Relapsing Fever -	64	-	-	-	-	-	-	-	-	-
Continued Fever -	-	-	-	-	-	-	-	-	-	-
Puerperal Fever -	-	-	-	-	1	3	-	1	1	2
Plague -	4	-	-	-	-	-	-	-	-	-
Totals -	-	-	-	-	-	-	-	-	-	-
	414	4	106	184	38	73	9	121	98	195

Measures adopted to control the spread of Infectious Diseases.

Immediately on the receipt of a notification the sufferer is removed to the Isolation Hospital, all bedding, clothing, and other articles, which have been in contact with the patient removed and disinfected by steam under pressure, the method adopted being that known as the "Washington Lyon's" process, which ensures thorough disinfection.

The room occupied by the patient is thoroughly disinfected by means of the Formalin Spray, or Alformant Lamp.

All sanitary fittings of the house are examined, and notices served where defects are found, the source of the Milk and Water supply investigated, the number of inmates, their occupation and place of employment noted, and the employers notified of the existence of Infectious Disease.

In the case of children attending school, the Education Authority is notified, and the children compelled to remain home until the house is certified free from infection.

Where books from Libraries are found in the infected premises they are confiscated, and the loss made good to the affected Library by the Sanitary Authority.

In those cases notified as not for removal to Hospital, the house is similarly visited and note taken as to whether isolation can be efficiently carried out. Workers in the house have the option of remaining at home till the patient is declared free from infection, or they must obtain lodgings elsewhere after disinfection of their clothing.

In addition to the verbal instructions given by the visiting Inspector, printed forms are left at the infected house which advise the occupiers what to do, and caution them as to the desirability of observing due precaution with reference to receiving visitors, and urge them to refrain from visiting other houses or mixing with the general public.

Similar precautions are taken with reference to all non-notifiable diseases which come under our observation, and after deaths from Phthisis, a notice is sent to the nearest relative offering free disinfection of the room occupied by, and all bedding, clothing, etc., which have been in contact with the diseased.

In houses where Small-pox makes its appearance, the measures taken are of necessity much more severe than in the other infectious diseases.

Small-Pox.

The Borough remained free from this disease during the year.

Puerperal Fever.

4 cases of Puerperal Fever were notified as compared with 6 in 1908. Of these, 2 occurred in the practice of midwives, and 2 were attended by medical practitioners.

Enteric Fever.

64 cases of Enteric Fever were notified as compared with 74 in 1908. 31 were admitted into the Isolation Hospital, 3 of which on further examination proved to have been incorrectly diagnosed, making the actual number of cases 61. In 6 cases consumption of shell-fish was the suspected cause, 8 were contacts, 5 had been drinking tank water of doubtful purity; in 20, the drains of the house were found defective. The origin of the other cases was not clear, but the infected houses were found in 10 instances to be without proper refuse receptacles, and in 6 the patient's dwelling was found in close proximity to open man-holes from which offensive smells emanated. These causes were dealt with by the Sanitary Authority.

TABLE X.

ENTERIC FEVER during 1909 & 10 previous years.

YEAR.	No. of Cases.	No. of Deaths.	Percentage fatality.	Rate per 1,000.
1899	80	9	11.1	.13
1900	37	13	35.1	.29
1901	25	6	24.0	.08
1902	44	9	20.4	.12
1903	50	3	6.0	.04
1904	50	9	18.0	.11
1905	82	14	17.0	.19
1906	72	8	11.1	.10
1907	34	6	17.6	.07
1908	74	15	20.2	.18
1909	64	7	10.9	.08

Diphtheria.

132 cases were notified during the year ; 19 deaths occurred, giving a percentage fatality of 14·4, and a death-rate of ·22 per 1000.

The part played by drains in the causation of Diphtheria is as yet undecided, but it is significant that out of the cases notified 29 occurred in houses where the drains were found defective.

It is probable, however, that most cases arose from contact with others actually suffering from the disease, or from “ carriers.”

TABLE XI.

During 1909 and 10 Previous Years.

Year.	Number of Cases.	Number of Deaths.	Percentage Fatality.	Rate per 1,000.
1899	19	5	26·3	·07
1900	61	23	37·7	·33
1901	64	36	56·2	·51
1902	38	15	39·5	·20
1903	40	13	32·5	·17
1904	54	12	22·2	·15
1905	55	7	12·7	·09
1906	42	8	19·0	·12
1907	59	10	16·9	·12
1908	117	13	11·1	·15
1909	132	19	14·4	·22

Scarlet Fever.

The number of cases notified was 168 ; 117, or 69·6 per cent. were admitted into the Isolation Hospital. Only one death from this disease was registered during the year.

TABLE XII

During 1909 and 10 Previous Years.

Year.	Number of Cases.	Number of Deaths.	Percentage Fatality.	Rate per 1000.
1899	201	0	0	0
1900	50	1	2·0	·01
1901	94	5	5·3	·07
1902	220	7	3·2	·09
1903	442	11	2·7	·14
1904	370	10	2·6	·13
1905	301	11	3·6	·14
1906	151	3	1·9	·02
1907	171	3	1·8	·02
1908	94	1	1·0	·01
1909	168	1	·59	·01

Diarrhœa or Zymotic Enteritis.

During the year Diarrhœa or Zymotic Enteritis accounted for 27 deaths.

Including Gastro-Intestinal Catarrh there were 39 deaths, 30 of which occurred in children under 1 year.

In 1908 there were 44 deaths of infants under 1 year or 56 including Gastro-Intestinal Catarrh.

In view of the prevailing meteorological conditions in 1909 this serves to illustrate the fact that hot dry weather is necessary for fatal Diarrhœa to become prevalent.

TABLE XIII.

SHOWING DEATHS FROM ZYMOTIC ENTERITIS AND DIARRHŒA

During 1909 and 10 Previous Years.

Year.	Number of Deaths	Under 1 Yr. of Age	1 Year and Upwards.	Rate per 1000
1900	75	64	11	1·1
1901	31	28	3	·43
1902	36	32	4	·49
1903	34	30	4	·46
1904	51	46	5	·67
1905	24	19	5	·31
1906	28	19	9	·35
1907	21	13	8	·26
1908	43	39	4	·52
1909	39	30	9	·46

Tuberculosis.

The number of deaths from all forms of Tuberculosis was 95, giving a death-rate of 1·1 per 1,000, which is the lowest rate (so far as my records show) yet reached in Devonport. Probably much of the decrease is to be attributed to the intelligent interest the public are now beginning to take in this important subject, to the manner in which the diffusion of knowledge is being taken up by the public press in the form of attractive articles, and to the special efforts of Sanitary Authorities and other public bodies.

During the year the Public Health (Tuberculosis) Regulations 1908, came into force, which provides for the notification to the Medical Officer of Health of all cases coming under the observation of the Poor Law Authorities. This has enabled us to follow up the consumptive in a manner which has hitherto been impossible. On change of address the rooms lately occupied have been inspected, sanitary defects looked for and remedied, thorough disinfection carried out, and infected bedding and clothing removed to hospital for special disinfection by steam. Similar measures have been employed after deaths from consumption. Leaflets have been printed and distributed, giving in simple language the principles and rules which should be followed by the sufferer and those around him for the amelioration of his own symptoms, and for checking any further spread of the disease to other occupants of the same house, etc.

24 cases were notified by the Medical Officers of the Workhouse, 9 by the Superintending Officer, 31 by the District Medical Officers and Relieving Officers, making a total of 64; of these, 46 were males and 18 females. The cases thus notified, however, form but a moiety of the number ever among us who are not only suffering themselves but are infecting others.

While great advance has been made by placing the fact prominently before the public that the disease is preventable, it should be made clear how it can be prevented. In a matter of such infinite importance, we cannot afford to neglect the most trivial detail that bears upon the subject. Without entering upon the great questions of tuberculous meat, milk, overcrowding, etc.,

much good could be done in our own households by individual effort in preventing the contamination of food, abolishing dirty habits in the house, and insisting upon scrupulous cleanliness. The servant who uses the same brush or cloth for the floor as the kitchen table and shelves on which the dishes, etc. for food are kept, is a source of danger to every member of the house.

Many of us, if our food is presented to all appearances clean, make no attempt to find out under what conditions it is prepared—saliva frequently aids in the cleaning of knives; nurses clean (?) the faces of their infant charges with this mis-used fluid; breathing into glasses as an adjunct to polishing is quite a common practice; a spoon dropped on the floor is immediately replaced on the tray and used without a thought of contamination; even food stuffs come through the same accidents and are treated in a like manner. Another practice is to use the common copper and wringer for dishcloths, which, it must be observed, are used for handkerchiefs, dusters, and all sorts of cloths. Although it may be urged that boiling removes the danger, it places the dishcloth among the category of unclean articles, and prevents the cultivation of that nice sense of cleanliness which should be predominant in our households.

The National Crusade against Consumption should extend not only to the highways, but into the byways, and into the remotest recesses of our dwellings.

I have, on a previous occasion, referred to the filthy habit of moistening the finger with saliva when turning leaves of books, etc. Almost every railway ticket that you get, theatre programme, and paper bag containing food is accompanied by the "lick of commerce."

TABLE XIV.

**DEATHS FROM PHTHISIS & OTHER TUBERCULAR
DISEASES during 1909 and 10 previous years.**

Year.	Deaths from Phthisis.	Rate per 1,000.	Deaths from other tubercular diseases.	Rate per 1,000.	Deaths from all forms of tuber- culosis.	Rate per 1,000.
1899	94	1·4	61	·94	158	2·3
1900	101	1·4	48	·70	149	2·1
1901	92	1·3	37	·52	129	1·8
1902	92	1·2	37	·51	129	1·7
1903	90	1·2	37	·50	127	1·7
1904	81	1·07	40	·53	121	1·6
1905	90	1·1	43	·56	133	1·6
1906	81	1·03	29	·37	110	1·4
1907	63	·8	20	·25	83	1·00
1908	86	1·04	32	·38	118	1·4
Average for years 1899-1908	87	1·15	39	·52	126	1·66
1909	65	·78	30	·36	95	1·1

Cancer.

68 deaths occurred from this disease giving a death rate of .81 per 1000 persons living. This shows an increase of 14 on the figures recorded in 1908, when the deaths numbered 54 and the death rate was .66.

TABLE XV.

Showing Location of Disease.

MALES.				FEMALES.			
Stomach	-	-	9	Uterus	-	-	14
Intestines	-	-	3	Breast	-	-	9
Lungs	-	-	4	Stomach	-	-	9
Jaw	-	-	2	Intestines	-	-	5
Tongue	-	-	1	Ovaries	-	-	1
Lips	-	-	1	Jaw	-	-	1
Œsophagus	-	-	1	Tongue	-	-	1
Kidney	-	-	1	Nose	-	-	1
			22	Mouth	-	-	1
				Œsophagus	-	-	1
				Liver	-	-	2
				Bones	-	-	1
							46
Total				68			

The returns of deaths from Cancer show that it has been steadily increasing during the past few years. This increase, however, is not confined to Devonport, but is fairly universal throughout the whole of the British Isles. Whilst, no doubt, this may to some extent be explained by improved methods of diagnosis, there is abundant evidence to show that this disease is becoming more prevalent. The idea that certain houses favour its incidence is founded upon insufficient evidence. An examin-

ation of the data relating to the disease in this Borough certainly yields no information which points to the existence of such "cancer houses." Until something more definite is known as to its origin it is difficult to practise any effectual preventive measures, so that we must wait with patience, and meanwhile turn our attention to the prevention of other diseases which offer ample scope for our energies.

During the year a number of requests have been received to disinfect houses and bedding after deaths from cancer, and this has been immediately carried out.

Borough Hospitals and Laboratory.

The Isolation Hospital at Swilley provides Wards for the treatment of Scarlet Fever, Diphtheria and Enteric Fever occurring in the Borough. By special arrangement, accommodation is also provided for patients from Stonehouse suffering from these diseases. The staff consists of a matron, four trained nurses, two probationers, three ward maids, a cook, laundress and disinfecter. The Clinical Instruction obtainable at the Hospital is now recognised by the University of Cambridge for the Diploma in Public Health, and by the Examining Board of the Royal Colleges of Physicians and Surgeons, London, for the Conjoint Diplomas.

A small Observation Ward which need only contain one or two beds is greatly needed. Whilst its proper use would be for the temporary accommodation of cases where the diagnosis is considered doubtful, it could also be utilised for the isolation of patients who, on admission are found to be suffering from a mixed infection. Two such cases occurred during the year, and severely taxed the resources of the Institution.

The Small-pox Hospital has remained empty another year, no case having occurred since the out-break of 1906. In many respects it would be very suitable for the Sanatorium treatment of Consumptives.

Training of Nurses.

During the year for various reasons, chiefly economic, the training of Probationers was initiated. From among a number of applicants, three well-educated young women were selected, who give every indication of becoming efficient nurses. They exhibit the keenest interest in the practical work in the wards, and also in my lectures.

Health of the Staff.

During the year one Probationer contracted Enteric Fever, and was off duty for 6 weeks, another suffered from Pneumonia and was laid up for 3 weeks, subsequently contracting Scarlet Fever she was absent from duty 6 weeks. A Ward Maid sustained an injury to her knee and, synovitis ensuing, was off duty 1 week. In other respects the health of the staff was good.

Bacteriological and Chemical Laboratory.

In May, 1907, a Laboratory was fitted up at the Borough Hospital. This was designed to assist in the recognition of obscure cases of Diphtheria, Typhoid Fever, and Phthisis occurring in Devonport. Subsequently this assistance was extended to other diseases, while, in 1909, a considerable amount of miscellaneous microscopical work has been undertaken for the Borough.

Diphtheria. 190 specimens were examined, a number of these being primary examinations for diagnostic purposes; the remainder were from "contacts" who had been exposed to diphtheria, or were taken from the throats of convalescents. The latter were examined with a view of ascertaining whether the bacillus of diphtheria was absent from the throat or nose. In some cases the organism was very persistent, requiring many examinations and extending over several weeks before it was found to have disappeared.

Several cases of Scarlatina with suspicious throat symptoms, were also examined bacteriologically in order to exclude the

possibility of Diphtheria. 3 cases were found on admission to have bacilli indistinguishable from diphtheria.

A number of specimens examined were from cases of Sore Throat or Nasal Discharge occurring in children attending the Elementary Schools.

Enteric (Typhoid) Fever. The value of the Serum test was manifested. During the year of 25 cases examined 19 gave a positive reaction.

Tuberculosis The number of specimens examined was 12, 3 of these containing the Tubercle Bacillus.

Ringworm. 25 specimens were examined for the presence of this parasite, 20 showed spores or mycelium and the majority were of the small spore variety.

Other morbid products were examined for local Medical Practitioners.

In addition to the actual examination of specimens much time has been occupied in the preparation of material needed for bacteriological work.

TABLE. XVI. Showing number of Cases removed to Hospital from each Locality.

	Tamar.							St Aubyn.							Stoke.							Total number of cases removed to Hospital.	Total number of cases removed to Hospital from Stonehouse
	Ages.							Ages.							Ages.								
	At all ages	under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 & upwds	At all ages	under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 & upwds	At all ages	under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 & upwds		
Small Pox ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cholera ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup ...	18	...	10	5	3	...	...	36	2	11	20	2	1	...	26	...	7	14	2	3	...	...
Erysipelas ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever ...	54	1	16	32	2	3	..	19	...	9	8	1	1	...	44	1	15	24	3	1	...	117	
Typhus Fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric Fever ...	8	...	...	2	3	3	...	8	...	...	6	1	1	...	15	...	3	1	6	5	...	31
Relapsing Fever...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal Fever...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTALS ...	80	1	26	39	8	6	—	36	2	20	34	4	3	—	85	1	25	39	11	9	—	228	
																						18	

TABLE XVII.

SHOWING CASES SENT INTO THE ISOLATION
HOSPITAL INCORRECTLY DIAGNOSED.

DISEASE.	Notified as suffering from--		
	Enteric Fever.	Diphtheria.	Scarlet Fever.
Measles - -	—	—	1
Pneumonia - -	2	—	—
Erythema - -	—	—	2
Mucous Enteritis -	1	—	—
Ulcerative Stomatitis	—	1	—
Varicella - -	—	—	1
	3	1	4

TABLE XVIII.

**SHOWING ADMISSIONS INTO HOSPITAL DURING
THE YEAR.**

AGE.		Admitted.		Remain- ing in Hospital at close of 1908.	Total Admis- sions.	Remaining in Hospital at close of 1909.
		Males.	Females			
Under 1 year	...	3	1	—	4	1
1 to 2 „	...	3	—	—	3	1
2 „ 3 „	...	7	4	—	11	1
3 „ 4 „	...	11	9	2	20	4
4 „ 5 „	...	15	23	1	38	4
5 „ 10 „	...	47	54	7	101	12
10 „ 15 „	..	17	9	—	26	4
15 „ 20 „	...	11	5	—	16	1
20 „ 25 „	...	3	5	1	8	—
25 „ 30 „	...	1	5	—	6	2
30 „ 35 „	...	1	5	—	6	—
35 „ 40 „	...	—	3	1	3	—
40 and upwards	...	1	3	—	4	—
Totals	..	120	126	12	246	30

ARTICLES DISINFECTED AT BOROUGH HOSPITAL.

Mattresses	...	...	...	199
Feather Beds	...	...	...	122
Blankets	...	...	...	609
Sheets	...	...	...	388
Quilts	...	...	...	358
Bolsters	...	...		150
Pillows	...	...	...	581
Pillow Covers	...	...	...	530
Dresses	...	...	...	102
Skirts	...	...	...	75
Coats, etc.	...	...	...	134
Trousers	...	...	...	53
Waistcoats	...	...	...	110
Carpets	...	...	...	24
Dressing Gowns		...	...	16
Curtains	...	...	...	95
Shirts	...	...	...	63
Towels	...	...	...	35
Aprons	...	...	...	29
Blouses	...	...	...	52
Shawls	...	...	...	59
Table Cloths	...	...	...	26
Cushions	...	...	..	109
Corsets	...	...	...	94 pairs
Boots and Shoes		...	...	189 pairs
Hats and Caps	...	...	...	60
Braces	...	...	...	84 pairs
Belts	...	...	...	23
Jerseys	...	...	...	45
Rugs	...	...	...	20
Nightdresses	...	...	...	33
Vests	...	...	...	30
Drawers	...	...	...	34 pairs
Stockings	...	...	...	43 pairs
Handkerchiefs	...	...	...	73
Total				4,647

Education Acts.

During the year 2580 Exemption Certificates were granted to children unable to attend School in consequence of illness. At the Special School 119 reports were made as required by the Board of Education; three children committed to Industrial Schools and one to the Deaf and Dumb Institution were medically examined.

During the year Measles and Whooping Cough were somewhat prevalent, but it has not been necessary to close any School in the Borough.

TABLE XIX.

**Showing Fall in the Attendance at the Schools affected by
MEASLES AND WHOOPING COUGH.**

School.	Dept	Disease.	Date.		Fall in Percentage.	
			From	To	From	To
Johnston Terrace -	I.	Measles	Feb.	April	88·0	65·0
Keyham R.C. -	I.	do.	„	March	87·3	77·9
York Street -	I.	do.	„	April	89·0	68·3
Ker Street -	I.	do.	March	May	85·1	72·4
Paradise Road -	M.	do.	„	April	87·6	61·6
Stuart Road -	I.	do.	„	May	89·8	63·1
St. James' -	I.	do.	„	April	87·7	65·0
Ford -	I.	do.	Feb.	June	90·2	73·1
Somerset Place -	I.	do.	„	May	86·4	66·1
Weston Mill -	I.	do.	„	„	89·8	54·2
Victoria Road -	I.	do.	„	June	91·4	66·2
Naval and Military	I.	do.	„	May	90·4	76·2
St. Joseph's -	I.	do.	March	„	83·3	73·5
St. Budeaux -	M.	do.	„	July	87·1	70·3
Victoria Road -	M.	do.	May	June	89·3	85·3
Montpelier -	M.	do.	„	July	87·2	77·2
St. Stephen's -	I.	do.	„	June	88·1	77·4
Ford -	I.	Whooping Cough	Oct.	Dec.	91·0	66·1
Weston Mill -	I.	do.	Nov.	„	89·0	81·0
Stuart Road -	I.	do.	„	„	87·0	76·6
Victoria Road -	I.	do.	„	„	85·0	73·9
York Street -	I.	do.	„	„	88·5	83·3
St. Joseph's -	I.	do.	Oct.	„	88·0	73·6

Midwives' Act, 1902.

This Act came into operation on 1st April, 1905. The Supervising Authority for Devonport is the Sanitary Committee, and the Inspector under the Act is the Medical Officer of Health.

The duties under the Act are :—

1.—To exercise general supervision over all Midwives practising in the Borough in accordance with the rules laid down by the Central Midwives' Board.

2.—To investigate charges of malpractice, negligence, or misconduct on the part of any midwife practising in the Borough, and should a *prima facie* case be established, to report the same to the Central Midwives Board.

3.—To suspend any Midwife from practice in accordance with the rules under this Act, if such suspension appears necessary in order to prevent the spread of infection.

4.—To report to the Board the name of any Midwife practising in the Borough convicted for any offence.

5.—During the month of January of each year, to supply the C.M.B. with the names and addresses of all Midwives who, during the preceding year, have notified their intention to practise within the Borough and to keep a current copy of the roll of Midwives, accessible at all reasonable times for inspection.

6.—To report to the C.M.B. the death of any Midwife, or any change in the name or address of any Midwife in the Borough so that the necessary alteration may be made in the roll.

7.—To give due notice of the effect of the Act so far as practicable, to persons at present using the title of Midwife.

There are, practising in the Borough, 26 registered Midwives. Of these, 16 are residents, 4 reside in Plymouth, and 6 in Stonehouse. As required by the Act, all these persons notified their intention to practise during the year.

71 visits were made to Midwives' houses for the purpose of inspecting their case book, bags, appliances, etc., which, for the most part, were found satisfactory. Instruction was given either

by my assistant or myself, in certain cases where the Midwife from lack of knowledge, was unable to make the best use of certain appliances, etc.

One Midwife was removed from the roll for a breach of the Rules of the Central Midwives Board, 2 notified change of address, and 2 left the Borough.

The number of cases in which Medical assistance was sought by Midwives was 22.

On and after April 1st, 1910, no uncertificated woman shall habitually and for gain attend women in child-birth otherwise than under the direction of a qualified Medical Practitioner.

A new rule was sanctioned by an Order of Council dated March 14th, enabling the Central Midwives Board to admit to the Roll a candidate who, though duly qualified under Sec. 2 of the Midwives Act, failed to, claim the Board's Certificate during the two years period of grace which ended on March 31st, 1905.

Still-births.

The total number of Still-births notified by Midwives was 7 as against 31 in the preceding year. This remarkable reduction in the number of Still-births occurring in the practice of Midwives is highly satisfactory, especially when it is considered that there has been no diminution in the number of cases attended.

In every case strict enquiries have been made as to the manner in which the Midwife conducted the labour, methods of resuscitation employed, and the body of the child examined.

Water Supply.

An upland supply obtained from the upper reaches of the West Dart, Cowsic and Blackbrook Rivers about 3 miles from Princetown.

The gathering ground comprises 4,716 acres, the West Dart being 1,539, the Cowsic 1,524 and the Blackbrook 1,653 acres. It is of granite formation.

The supply is by gravitation, and with the exception of 660 yards of tunnel, is conveyed in an open leat 17 miles long from the gathering ground to the new service Reservoir at Dousland.

Between the two Reservoirs at Dousland and Belliver the water is conveyed by a new line of pipes, thence from Belliver to Crownhill Storage Reservoir in pipes.

The Reservoirs are five in number viz: Dousland, Belliver, Crownhill, Beacon, and Rowdens, the total storage being just over 22,100,000 gallons, about eight days supply.

A new Storage Reservoir to hold 20,000,000 gallons is now under construction, and this, with the new pipe line from Dousland to Belliver which alone saves 600,000 gallons per day, being the quantity wasted through the old leat, will ensure an ample and uninterrupted supply sufficient to meet the requirements of any probable increase of population for many years to come.

Devonport Water.

ANALYSIS OF SAMPLE.

Physical Characters : Clear appearance, pale greenish yellow colour, very little deposit on standing, no smell.

					Parts per 100,000
Saline Ammonia	-	-	-	-	·000
Albuminoid Ammonia	-	-	-	-	·002
Oxygen absorbed from Permanganate in three hours at 80° F.	-	-	-	-	·093
Total solid matters	-	-	-	-	6·800
Volatile do	-	-	-	-	2·100
Fixed do	-	-	-	-	4·700
Appearance on ignition. The residue slightly charred.					
Total Hardness	} equal to grains of Carbonate of Lime				1·950
Temporary					
Permanent					
Chlorine	-	-	-	-	1·100
Nitrogen as Nitrates	-	-	-	-	·000
Do. as Nitrites	-	-	-	-	·000
Poisonous metals	-	-	-	-	·000

Microscopical Examination of the Sediment. A few diatoms, some cellular vegetable debris.

REMARKS.—Bacteriological Examination.

Water bacteria	-	-	-	144 per C.C.
Bacillus coli	-	-	-	0 „ „

The water is in good condition and free from any organic impurities.

Register of Rainfall, 1909.

Date, 1909.	White Tor No. 1 Gauge Level 1640-ft.	Devil's Tor No. 2 Gauge Level 1785-ft.	Beardown Tor No. 3 Gauge Level 1550-ft.	Cowsic Head No. 4 Gauge Level 1580-ft.	Black Dunghill No. 5 Gauge Level 1590-ft.
	Inches.	Inches.	Inches.	Inches.	Inches.
January -	7.90	7.30	6.60	9.90	9.00
February	.70	.80	.60	.90	.70
March -	6.70	6.40	6.20	7.80	6.20
April -	5.80	4.20	3.10	5.20	3.70
May -	2.10	2.30	2.20	2.60	2.30
June -	2.60	2.50	2.80	2.80	2.65
July -	4.20	4.30	4.00	4.30	3.50
August -	3.00	3.20	2.60	3.70	2.80
September	2.20	2.40	2.00	2.90	2.70
October -	10.40	10.50	9.10	13.00	10.20
November	2.20	2.20	2.00	2.80	2.30
December	7.20	6.40	6.10	8.80	7.00
Total	55.00	52.50	47.30	64.70	53.05

1909.

Cowsic Valley.

Level 1357-ft. Ord. Datum.—Rainfall.

		Inches.			Inches.
January	...	4·65	August	...	4·20
February	...	1·40	September		2·90
March	...	5·50	October	...	14·00
April	...	4·50	November	...	1·90
May	...	4·70	December	...	10·70
June	...	3·10			
July	...	6·50	Total	...	64·05

Lowery Gauge.

Level 890-ft. Ord. Datum.—Rainfall.

		Inches.			Inches.
January	...	2·67	August	...	3·07
February	...	·79	September	...	1·97
March	...	7·43	October	...	11·08
April	...	3·90	November	...	1·79
May	...	1·87	December	...	9·06
June	...	2·57			
July	...	5·28	Total	...	51·48

Rowden's Reservoir.

Level 201-ft. Ord. Datum.—Rainfall.

		Inches.			Inches.
January	...	1·74	August	...	1·69
February	...	·48	September	...	·99
March	...	5·14	October	...	6·20
April	...	1·79	November	...	·94
May	...	·96	December	...	5·61
June	...	3·30			
July	...	3·21	Total	...	32·05

Sewage Disposal and Drainage.

The Sewage of a part of the Borough is discharged into the sea by seven outfalls. For drainage purposes the Borough is divided into seven districts or drainage areas, each having its own outfall. A small Septic Tank receives the sewage from those dwellings west of St. Budeaux Station, the effluent being discharged into Kinterbury Creek. New Septic Tanks have been constructed at Camel's Head and these deal with the sewage of St. Budeaux and Ford Valley, East of Ford Hill and a part of the Crownhill district outside the Borough.

During the year I drew your attention to the necessity of reform in the ventilation of the main sewers. The present method is the open manhole from which nuisances are constantly being reported. To remedy this in many instances the manholes have been closed, a procedure as objectionable as it is unscientific. The sewer gas confined in the sewer in this way is at any time liable to escape through the interceptors of the house drains with dangerous consequence to the occupants of the house. Air shafts should be erected in such positions and terminated at such heights as to secure a safer outlet for the sewer gas.

The relation of drain gas and sewer air to outbreaks of typhoid fever and diphtheria is a matter on which considerable variations of opinion have existed for a long time. We know that there are possibilities of typhoid fever and diphtheria patients continuing to be a source of infection to the community, notwithstanding the fact that they are apparently cured. In other words the infective agents of these diseases must be distributed to the sewage of towns without previous disinfection. Recent experiments have shown that under ordinary circumstances bacteria found in the air of the sewers and drains may be conveyed into the outer atmosphere, chiefly by splashing. Even in the absence of air currents, bacteria liberated from the sewer air in the fine spray caused by splashing may travel for about 14 feet in a horizontal direction and for about 12 feet in a vertical direction. These experiments justify sanitarians in maintaining that sewer air and drain gas are potentially dangerous, and we should insist that

these gases be allowed to vent themselves at points where they will be freely mixed with pure air by proper ventilation in suitable stations and that manholes should be opened and kept under due supervision.

House Inspection.

The systematic inspection of houses commenced four years ago has been continued during the year, and as will be seen from the Table, numerous defects have been discovered and many reforms introduced.

General Sanitary Work.

TABLE XX.

Showing details of the work done during the year 1909.

[illegible]

Cleansing and Refuse Removal.

During the year, collection of refuse throughout the Borough has been carried out in a systematic and efficient manner by your Cleansing Superintendent.

From dwelling houses, collections have been made twice weekly, and in certain cases where the special circumstances warranted, three and four times a week. A great drawback to this important work is the large number of wet ash-pits still in existence in the Borough. These, however, are gradually being abolished.

The amount of refuse collected and disposed of was 27,225 loads; waste paper collected from various shops and establishments amounted to 2,025 loads.

Town refuse is still sent to sea by means of a large Hopper and I would again urge upon the Council the necessity of erecting a suitable Destructor.

All the principal streets have been swept daily with machine brooms, in dusty weather the brushing being preceded by water carts. Macadamised roads have received attention twice weekly; wood and most of the thoroughfares paved with setts have been swept daily. The number of loads of street sweepings and macadam mud collected and tipped at the available sites amounted to 5,236.

There are 2,420 gullies in the various streets of the Borough. These have received attention twice a week. In the summer season they were flushed and sealed with disinfectant solution; the amount of deposit removed and carted to tip was 1,342 loads.

In very dry weather 14 water vans were engaged in street watering, most of the streets being watered 3 times daily. The water used in this way amounted to 3,308,660 gallons.

Housing of the Working Classes Act, 1890

Part II.

Accounts presented to the Local Government Board, in Pursuance of Section 14 of the Housing of the Working Classes Act, 1890, in respect of the year ended 31st December, 1909.

BUILDINGS UNFIT FOR HUMAN HABITATION.

1. Number of Dwelling-houses in respect of which complaints were made by House-holders during the year (Section 31 (1)) ... 0
2. Number of Dwelling-houses in respect of which representations were made to the Local Authority during the year—
 - (a) By the Medical Officer of Health ... 2
 - (1) Upon complaints made by House-holders, (Section 31 (1)) ... 0
 - (2) Without such complaints (Section 30) ... 0
 - (b) By another Officer of the Local Authority or upon information otherwise given (Section 32 (1)) ... 0
3. Number (if any) of the Dwelling-houses above referred to in respect of which the Local Authority decided not to take any action under Part II. of the Act ... 0
4. Number of Dwelling-houses respecting which action had been taken under Part II. of the Act, which were satisfactorily dealt with by the Owner during the year, without a closing order being obtained ... 0
 - (a) Number made fit for human habitation ... 1
 - (b) Number closed or demolished voluntarily ... 1

**List shewing the number of new houses built during
the year ending 31st December, 1909.**

NAMES OF STREETS, &c.	Number of Houses Built.
Atherton Place - - - -	4
Barlow Place - - - -	4
Beauchamp Crescent - - - -	3
Beaumont Street - - - -	12
Belair Villas - - - -	3
Camilla Terrace - - - -	2
Chard Road - - - -	2
Edgcumbe Avenue - - - -	7
Elphinstone Road - - - -	1
Fellowes Place - - - -	3
Fleet Street - - - -	4
Forest Avenue - - - -	5
Ford Hill - - - -	19
Meredith Road - - - -	6
Northesk Street - - - -	10
St. James' Place - - - -	1
Total - - - -	86

I am indebted to the Inspector of Buildings (Mr. H. J. S. Worth) for the above particulars.

TABLE XXI.

FACTORIES AND WORKSHOPS ACT, 1901.

1. INSPECTION.

PREMISES.	Number of		
	Inspections.	Written Notices.	Prosecutions.
FACTORIES---including Factory Laundries - -	46	3	—
WORKSHOPS— including Work-shop Laundries - -	372	14	—
WORKPLACES - - -	—	—	—
HOMeworkERS' PREMISES -	508	12	—
TOTAL -	926	29	—

TABLE XXII.

2. DEFECTS FOUND.

PARTICULARS.				Found.	Remedied.	Referred to H.M. Inspector.	Number of Prosecutions.
Want of Cleanliness - - -				11	11	—	—
Overcrowding - - -				10	10	—	—
Other Nuisances - - -				14	14	—	—
Sanitary Accommodations	{	Insufficient -		4	4	—	—
		Unsuitable or Defective -		1	1	—	—
		Not separate for sexes -		0	0	—	—
TOTAL -				30	30	—	—

TABLE XXIII. 3. OTHER MATTERS.

CLASS.				Number.
Matters notified to H.M. Inspector of Factories—				
Action taken in matters referred by H.M. Inspectors		Notified by H.M. Inspectors		4
as remediable under the Public Health Acts but not		Reports (of action taken)		
under the Factory Act. (Sec. 5)		sent to H.M. Inspectors.		2
Homework :—				
Lists received twice in the year from Local Employers, and number of Outworkers (Sec. 107)				
“	“	“	“	4
“	“	“	“	0
“	“	“	“	4
“	“	“	“	4
Addresses of Householders { Forwarded to other Authorities				31
Received from other Authorities				0
Homework in Unwholesome or Infected Premises :—				6
Notice prohibiting homework in unwholesome premises (Sec. 108)				192
Cases of Infectious disease notified in homeworkers' premises				
Orders prohibiting homework in infected premises (Sec. 110)				
Total number of Workshops on Register				180

Diseases of Animals Act.

During the year one case of Swine Fever was reported and confirmed on examination by the Board's Veterinary Inspector. The outbreak involved 11 pigs, 9 of which were destroyed by the Inspector of the Board of Agriculture, the remaining 2 being isolated.

No other cases of communicable disease among animals occurred in the Borough.

Piggeries.

There are 24 piggeries in the Borough ; 15 of these are in connection with Dairy Farms, 6 are owned by butchers, and 3 by allotment holders. They have been inspected from time to time and kept free from nuisance.

Slaughter Houses.

The Slaughter Houses (9 in number) have been visited weekly, and found to be kept in a satisfactory condition. They were inspected both at the time, and in the intervals of slaughtering.

Meat Inspection.

By a rearrangement of the Sanitary work this is now carried out by one of the Assistant Inspectors who holds the Certificate of Inspection of Nuisances of the Royal Sanitary Institute. He does not possess a Special Certificate in meat inspection, but has had considerable experience in this branch of work.

During the year 632 carcasses of beef, 475 of mutton and lamb, 56 of veal, and 250 of pork were inspected. With few exceptions these have been found satisfactory. This is not surprising when it is considered that at least 70 per cent. of the meat sold in the Borough comes direct from the Plymouth Wholesale Meat Market where it is subjected to a very rigid inspection. One case of Tuberculous disease was found in a bullock which was voluntarily destroyed, the carcass being removed to a field and buried in lime.

Bakehouses.

There are 62 Bakehouses in the Borough all of which have been regularly inspected, and for the most part found to be conducted in accordance with the requirements of the Act.

In a few cases, it was noted that limewashing had been neglected, but on drawing the attention of the occupiers to this omission the work was immediately carried out.

Offensive Trades.

During the year the premises in which offensive trades are carried on were regularly inspected, 52 visits being made, and generally found in a fairly satisfactory condition. The Offensive Trades in the Borough now, are :—

- 1 Blood Boiling.
- 1 Tripe „
- 1 Gut Scraping.

In former years complaints have at times been received of offensive smells emanating from the Gut Factory, especially during the summer months ; no such complaints have, however, been reported during the past year.

Cowsheds.

There are 63 Cowsheds in the Borough affording accommodation for 534 Cows. They have been regularly inspected during the year, the visits for the most part being made at milking time in order that cows and the conditions under which they are milked might be seen, and a true estimate formed of the degree of cleanliness observed by the milkers.

On the whole the Sheds are kept in a satisfactory state, and suggestions are almost invariably met with a spirit of willingness and the improvements immediately proceeded with.

The majority of Cowkeepers now cleanse the udders, although it must be admitted this is sometimes done in a somewhat perfunctory manner. In some instances the milker was seen to use the same water and cloth for the double purpose of cleaning

the cow and washing his hands, a procedure calculated to defeat the object aimed at.

31 of the Sheds are built of stone with roofs of slate or corrugated iron ; the remainder are constructed of wood. In every case the flooring is of suitable impervious material, either vitrified brick, or Portland cement on concrete. The urine and washings flow into a channel and pass to a trapped gully outside the shed whence they are carried through pipes to a cesspit or allowed to irrigate over the fields.

Food and Drugs Acts.

During the year, 196 samples (including 53 Informal) taken under the above Acts were analysed ; 170 were found genuine, and 26 adulterated. This is equal to a percentage of 13·2 of the whole of the samples submitted. The greatest amount of adulteration was found in scald milk, 18 of the 26 samples containing added water. In the case of raw milk, only six out of the 32 samples were found to be adulterated. All the samples taken were free from preservatives.

Proceedings were taken in 16 cases, and fines amounting to £33 inflicted.

The general quality of the milk as supplied to the public cannot be considered satisfactory so long as this manipulation by the retailers continues. Hitherto, the fines imposed by the magistrates have exercised little check on dishonest vendors, and it is to be hoped that they will in future inflict more adequate penalties.

In only one case of the 28 samples of spirit taken was it necessary to take proceedings, whereas in the previous year eight cases were brought before the magistrates. All the samples of butter, cream, lard, and cheese submitted were found genuine. This is highly satisfactory considering the facility with which the former three articles can be adulterated.

Of 53 Informal Samples taken, five only (one whisky and four milk) were found to be adulterated.

TABLE XXIV.

Giving Details of Samples taken during 1909.

Number of Samples.	Description of Article.	Number Genuine.	Number Adulterated.
32	Raw Milk	26	6
26	Scald Milk	8	18
30	Butter	30	—
21	Cheese	21	—
16	Preserves	16	—
10	Cream	10	—
14	Brandy	14	—
6	Gin	6	—
8	Whisky	6	2
10	Lard	10	—
12	Vinegar	12	—
4	Margarine	4	—
1	Honey	1	—
6	Syrup	6	—
196		170	26

TABLE XXV. Showing Adulterations and Result of Actions taken.

Description of Article.	Date of Purchase.	Submitted for Analysis.	Extent of Adulteration.	Date of Proceedings.	Fines.	Costs.
Raw Milk	11th January	11th January	24 per cent. added water	10th February	£ s. d.	£ s. d.
Scald Milk	13th "	13th "	38 "	10th February	1 0 0	1 0 6
Scald Milk	2nd February	2nd February	24 "	3rd March	0 10 0	1 0 6
Scald Milk	19th "	19th "	26 "	24th March	1 0 0	1 0 6
Scald Milk	23rd March	23rd March	13 "	21st April	1 0 0	1 0 6
Scald Milk	12th "	12th "	20 "	21st April	5 0 0	1 5 6
Scald Milk	12th "	12th "	25 "	21st April	1 0 9	1 0 6
Scald Milk	12th "	12th "	10 "	21st April	1 0 9	0 19 6
Scald Milk	19th "	19th "	25 "	21st April	5 0 0	0 19 6
Scotch Whisky	23rd "	23rd "	33·20 under proof	19th May	5 0 0	1 0 6
Scald Milk	8th Dec'mber	8th Dec'mber	18 per cent. added water	19th January, 1910	1 0 0	1 0 6
Raw Milk	8th "	8th "	23 "	26th January "	1 0 0	(inclusive)
Raw Milk	8th "	8th "	20 "	19th January "	1 0 0	1 6 6
Scald Milk	17th "	17th "	13·5 "	19th January "	0 0 0	1 5 6
Scald Milk	17th "	17th "	9 "	19th January "	5 0 0	1 5 6
Scald Milk	17th "	17th "	28 "	19th January "	1 0 0	(inclusive)
Raw Milk	1st March	1st March	15·7 "	19th January "	3 0 0	1 0 6
Scald Milk	23rd "	23rd "	3 "	Informal		
Scald Milk	22nd "	22nd "	13 "	Informal		
Raw Milk	24th April	24th April	16 "	Informal		
Irish Whisky	25th August	25th August	32 under proof	Informal		
Scald Milk	5th February	5th February	8 per cent. added water	} No proceedings by order of the Food and Drug Committee. Warranty produced, no proceedings.		
Scald Milk	5th "	5th "	8 "			
Scald Milk	5th "	5th "	8 "			
Scald Milk	31st March	31st March	7 "			
Raw Milk	14th Febr'y	14th Febr'y	18 "			

TABLE XXVI.

Giving Prosecutions and Fines inflicted
during 1909 and previous years.

YEAR.	Prosecutions.	Fines Inflicted.		
		£	s.	d.
1893	Nil.		Nil.	
1894	5	5	5	0
1895	4	2	6	0
1896	2	6	0	0
1897	4	2	6	0
1898	6	3	0	0
1899	Nil.		Nil.	
1900	8	6	5	0
1901	3	1	16	0
1902	2	1	1	0
1903	5	2	8	0
1904	Nil.		Nil.	
1905	1	0	10	0
1906	2	2	0	0
1907	12	33	0	0
1908	17	44	4	6
1909	16	33	0	0



COUNTY BOROUGH OF DEVONPORT.

Annual Report

ON THE

Medical Inspection of School Children

BY

O. HALL,

D.P.H., F.C.S., L.R.C.P., L.R.C.S. ETC.

SCHOOL MEDICAL OFFICER.

County Borough of Devonport.

EDUCATION COMMITTEE.

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(Mr. Alderman LITTLETON, J.P.)

Deputy Chairman : Mr. Alderman HORNBROOK, J.P.

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Mr. „ GOODMAN, J.P.	Mr. „ TREGLOHAN
Mr. „ MOON, J.P.	Rev. W. CRISPIN
Mr. Councillor BARTLETT	Rev. A. T. HEAD
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Mr. „ LEEST, J.P.	Miss RAYMOND
Mr. „ J. MOON	Mrs. ROLSTON
Mr. „ PERKINS	.

Education Secretary : W. H. CRANG, Esq.

Medical Officer :

O. HALL, D.P.H., L.R.C.P., L.R.C.S.

Assistant Medical Officer :

W. ST. CLAIR MCCLURE, D.P.H., L.R.C.P., M.R.C.S.

TO THE CHAIRMAN AND MEMBERS OF THE
EDUCATION COMMITTEE.

COUNTY BOROUGH OF DEVONPORT.

LADIES AND GENTLEMEN,

I beg to submit my Report on the Medical Inspection of School Children for the year 1909.

Throughout, I have endeavoured to conduct the examinations in accordance with the recommendations of the Board of Education, and, therefore, with the exception of a few minor details, the general arrangements as described in the report for 1908 has been strictly adhered to.

The work of the second year was resumed on January 11th, and ended on December 17th, 1909. On the latter date there were in the Borough, 15 Provided Schools including 27 departments with recognised accommodation for 11,040 children, and 8 non-provided schools accommodating 2,914 children. The total provision for Elementary School children in the Borough, therefore, is 23 Schools with accommodation for 13,955 Scholars. The number of children on the Registers on December 17th, 1909 was 13,306.

During the year the number examined was 3,029 or 949 more than in 1908. This includes all new admissions since January 1909, and those children who are expected to leave School before December, 1909. In addition, a large number of cases presenting symptoms suggestive of disease have, by the request of the parent or head Teacher, been also examined and this has enabled us to exclude many children whose presence would have been a source of danger to the others.

The parents were present at 1743 or 57·5 per cent. of the inspections, and in all cases in which remediable defects were found, strong representations were made to them of the necessity for immediate treatment. Similar advice was sent by the Education Secretary (Mr. Crang) when the parent was absent.

The Sanitary condition of the Schools has also received attention. During the year the Hygienic conditions prevalent in the area of this Authority may be described in reference to the older schools as fairly satisfactory and for the newer ones as distinctly good.

Table Showing number of Children examined
at each age period.

Age.	Boys.	Girls.	Total.
3 — 4	102	100	202
4 — 5	179	161	340
5 — 6	159	194	353
6 — 7	322	265	587
7 — 8	244	232	476
8 — 9	96	84	180
9 — 10	52	55	107
10 — 11	31	56	87
11 — 12	40	48	88
12 — 13	41	48	89
13 — 14	131	191	322
14 — 15	106	48	154
15 — 16	42	1	43
16 — 17	1	—	1
Total at all ages	1546	1483	3029

Personal History.

Considerable difficulty was experienced in obtaining reliable information respecting the children's personal history, especially concerning those infectious diseases from which the child had suffered previous to the inspection. The figures given below may be regarded as the minimum, for in many instances, in the absence of the parent, it was impossible to elicit from the child any definite history, in which case the evidence was considered negative.

Disease.			Number.	Per cent.
Measles	-	-	1707	56·3
Whooping Cough	-	-	726	23·9
Chicken-pox	-	-	379	12·5
Scarlet Fever	-	-	124	4
Diphtheria	-	-	29	·9
Enteric Fever	-	-	6	·2
Small-pox	-	-	4	·1

Boots and Clothing.

	Good.		Indifferent.		Bad.	
	No.	p.c.	No.	p.c.	No.	p.c.
Boys -	1476	93·5	70	4·5	31	2
Girls -	1387	93·6	89	6	7	·4
	2863	93·6	159	5·2	38	1·2

Defects in clothing and footgear, as will be seen from this table, were noted as bad in 38 and indifferent in 159 instances respectively. These defects were doubtless due in most instances to poverty, and whenever this was apparent to the Education Authority prompt relief has been given to the sufferers, as is evidenced by the fact that no less than 265 pairs of boots have been supplied during the year. Apart from deficiency, unsuitable clothing was found in a number of children, the summer clothing being in excess of their requirements. Instruction on the rational method of dressing children should be given in schools especially to the older girls.

Comparative Table showing Height and Weight.

BOYS.

Age.	Number Examined.	Height in Centimetres.	Height in Inches.	Weight in Kilos.	Weight in lbs.
3—4	102	92·4	36·3	15	33·1
4—5	179	97·1	38·3	16·1	35·3
5—6	159	103·5	41	17·8	39·5
6—7	322	109·8	43·6	19·9	43·9
7—8	244	111·9	44·6	20·6	45·9
8—9	96	116·5	46·4	22·8	50·4
9—10	52	120·9	48·3	25·1	55·3
10—11	31	131	52·4	29·3	64·8
11—12	40	131·1	52·5	30·1	66·6
12—13	41	136·8	54·8	33·2	73·3
13—14	131	142·7	57·3	36·1	80·1
14—15	106	144·1	57·9	38·4	85·1
15—16	42	153·9	61·5	45·8	101·6
16—17	1	173·1	68	59·6	121

GIRLS.

Age.	Number Examined.	Height in Centimetres.	Height in Inches.	Weight in Kilos.	Weight in lbs.
3—4	100	92·7	36·5	15·4	34·2
4—5	161	96·5	38·1	15·6	34·8
5—6	194	102·9	40·8	17·8	39·4
6—7	265	108·4	43·1	19·6	43·1
7—8	232	111·7	44·4	20·6	45·4
8—9	84	115·5	46	22·1	49
9—10	55	123·4	49·3	25·5	56·6
10—11	56	128·7	51·5	27·4	60·6
11—12	48	131·1	52·5	29·7	65·6
12—13	48	137·8	55·3	31·5	69·5
13—14	191	141·3	56·9	36·7	81·5
14—15	48	147·9	59·5	41·3	91·7
15—16	1	149·1	60	41·4	92

Generally speaking, these tables show that our boys and girls are at most age periods up to the average in height and weight, when compared with the British Anthropometrical Association's standard.

Comparative Table
 Showing Height and Weight of Different Sexes, in Centimetres and Kilograms.

	3 years.		4 years.		5 years.		6 years.		7 years.		8 years.		9 years.		10 years.		11 years.		12 years.		13 years.		14 years.		15 years.	
	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.
BOYS	92.4	15	97.1	16.1	103.5	17.8	109.8	19.9	111.9	20.6	116.5	22.8	120.9	25.1	131.0	29.3	131.1	30.1	136.8	33.2	142.7	36.1	144.1	38.4	153.9	45.8
GIRLS	92.7	15.4	96.5	15.6	102.9	17.8	108.4	19.6	111.7	20.6	115.5	22.1	123.4	25.5	128.7	27.4	131.1	29.7	137.8	31.5	141.3	36.7	147.9	41.3	149.1	41.4

TABLE SHOWING HEIGHT & WEIGHT at DIFFERENT SCHOOLS in Centimetres & Kilograms..

BOYS.

School.	Examined.	3 years.		4 years.		5 years.		6 years.		7 years.		8 years.		9 years.		10 years.		11 years.		12 years.		13 years.		14 years.		15 years.	
		Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.
Stoke ..	86	—	—	—	—	—	—	—	—	—	—	—	—	127·5	27·7	135·5	31·5	136	33·3	139·5	35·2	150·3	40·6	152·3	43·7	163	49·7
St. John's ..	41	91·6	15·9	95·3	15·6	101·2	16·8	112	20·5	114·5	21	118	23·4	123·5	27·4	—	—	125·1	28·8	133·5	30	143·1	33·1	151·7	48·2	—	—
York Street ..	92	90·4	14·3	96·3	15·5	98·3	16·5	106·1	18·3	106·8	19·3	116·3	22·3	115·7	23·2	128·7	27·7	121·8	25·4	128·5	28·2	139·6	34·9	137·8	34·5	—	—
St. Stephen's ..	96	94·6	15·9	95·1	14·7	99·4	16·5	107·5	20·3	113·6	20·9	116·7	22·9	122·2	25·5	129·9	30·6	128·3	29·1	132·3	29·6	140·2	35·5	139	37·1	149·1	47·8
Morice Town ..	150	93·5	15·2	97·3	16	100·8	16·9	109·5	19·2	107·1	18·7	118	23·2	119·5	23·8	131·5	28·8	133·8	30·2	142·2	35·4	143·1	36·3	139	32·8	—	—
R. N. & Military	116	91·1	14·5	99	16·5	103·7	17·3	109·5	19·3	109·2	19·1	113·5	21·9	116·7	22·7	—	—	—	—	139·5	33·1	138·3	34·2	140·8	35·1	146·7	45·1
Johnston Terr.	185	93·9	16·5	98·7	17·4	107·1	18·2	107·5	20·1	109·9	20·9	—	—	122·7	27·3	126·3	30	139·6	36·6	128·7	30	140·5	33·2	142·1	33·3	160·2	46·3
St. Joseph's ..	55	—	—	93·9	15·4	105·5	19·1	107·9	19·1	113·4	21	112·7	21·4	—	—	—	—	—	—	—	—	134·3	30·6	135	31·5	—	—
Ford Council ..	298	95·1	14·7	98·9	17	104·5	18	109·9	20·2	113·1	20·4	117	22	119·9	24·2	123·9	27·7	132·5	33·3	125·5	26·3	149·5	39·6	148·9	41·8	151·3	43·8
St. James' ..	37	—	—	—	—	—	—	114	21·4	114·3	21·5	117·5	24·2	117·5	21·8	135·9	30·4	128·7	28·6	144·3	39·8	147·5	37·5	150·3	40·7	—	—
Stewart Road..	74	93·5	15·4	99·5	16·3	104·7	17·5	113·1	19·6	116·7	21·9	121·7	24·1	128·2	25·4	135·9	26·1	140·1	24·1	144·9	40·8	146·7	35·1	—	—	—	—
St. Mary's ..	47	—	—	—	—	—	—	122·7	22	114	21	113·3	21·5	110	20·1	131·9	32·2	128·7	29·6	133	31·3	138·5	34·8	139·1	37·1	—	—
Paradise Road	11	—	—	—	—	108·3	20·2	116·9	23·1	107·1	19·2	121·5	24·6	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Keyham R. C.	20	92·9	15·4	98·7	17	104·9	19·1	107·1	18·8	116·7	21·3	113·1	21·8	—	—	—	—	—	—	137·1	30	147·9	39·6	139·5	37·8	—	—
Victoria Road	88	93·5	14·1	99·5	15·6	106·8	17·9	111·7	21	115·7	21·5	123·5	24·2	124·1	26·7	135·9	30·4	131·1	27·2	—	—	151·5	42·1	150·3	40·6	154·2	42·1
Montpelier ..	32	—	—	93·9	15·6	—	—	101·5	17·9	108·5	24·1	—	—	123·5	26·1	126·3	26·4	128·7	25·9	138·3	33·3	138·3	34·2	133·5	31·5	—	—
St. Budeaux ..	19	—	—	101·1	17	—	—	—	—	—	—	119·1	23·8	—	—	136·3	30·9	—	—	149·1	43·2	139·5	37·5	163·7	51·6	—	—
Weston Mill Inf.	7	—	—	—	—	101·5	18·3	109·5	20	115·7	22·2	—	—	122·7	27·7	—	—	—	—	—	—	—	—	—	—	—	—
Somerset Place	61	91·8	16·1	97·5	16·3	102	17·4	107	19·6	109·5	18·9	106	20·5	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ker Street ..	31	83·3	12·3	92·7	15·5	—	—	108	20	107·5	18·6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AVERAGE ..		92·4	15	97·1	16·1	103·5	17·8	109·8	19·9	111·9	20·6	116·5	22·8	120·9	25·1	131	29·3	131·1	30·1	136·8	33·2	142·7	36·1	144·1	38·4	153·9	45·8

GIRLS.

School.	No. Examined.	3 years.		4 years.		5 years.		6 years.		7 years.		8 years.		9 years.		10 years.		11 years.		12 years.		13 years.		14 years.		15 years.	
		Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.	Ht.	Wt.
Stoke ..	10	—	—	—	—	—	—	119.1	22.2	115.5	22.2	—	—	139.5	32.1	133.1	29.7	139.5	34.2	134.7	29	—	—	—	—	—	—
St. John's ..	28	91.8	15.6	95.5	15.5	101.1	16.6	112.1	20.5	111.9	20	118.7	22.2	121.5	24.7	141.9	36	—	—	—	—	142.1	38.9	149.1	40	—	—
York Street ..	110	90.1	14.6	99.3	15.6	99.8	16.5	104.1	18.9	110.5	20.3	109.1	20.9	117.9	23.2	116.7	24	130.2	29.2	137.1	32.2	137	34	146.7	40.5	—	—
St. Stephen's ..	75	89.1	13.5	97.1	15.2	98.7	16	108.1	20.6	109.1	19.7	107.3	20.4	116.5	23.4	120.5	25	—	—	129	29.8	135.9	36.4	144.3	39.8	—	—
Morice Town ..	139	92.5	15	96.3	16	103.2	17.9	103.5	17.9	—	—	—	—	—	—	124.9	25	136.2	31.4	140.5	33.3	143.9	36.5	145.5	39.9	—	—
R.N. & Military	127	89.5	14.7	92.7	15.6	103.1	17.5	111	20.1	112.2	21	115.2	21.5	118.6	23.8	133.2	27	131.3	29.8	151.5	38.7	143.5	36.6	144.3	40.8	—	—
Johnston Terr.	208	92.2	15.9	95.1	16	109.9	18.2	112.9	20.2	110.7	20.6	—	—	—	—	123.9	26.3	—	—	133.5	31.8	142.9	37.9	147.9	39.1	—	—
St. Joseph's ..	57	93.9	15.7	96.3	16.3	104.9	18.7	104.7	18.6	110.5	20.1	117.5	22	122.7	25.5	126.3	24.3	130.7	28.3	134.9	30.2	143.3	34.9	149.1	42.7	—	—
Ford ..	258	94.6	15.2	98.9	15.1	104.4	18.2	113.1	20.4	111.5	20.2	114.5	22.7	120.3	23.4	124.7	26.5	129	28.3	141	36.7	140.5	37.5	143.2	37.6	—	—
St. James' ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stuart Road ..	93	91.8	14.8	97.8	15.5	104.9	19.5	111.5	18.3	109.5	20.1	114.7	21.6	121.8	26.3	132.3	26.5	135.5	30.6	144.3	33.1	146	40	150.5	42.1	149.1	41.4
St. Mary's ..	57	—	—	—	—	97.5	16.7	104.3	18.2	114.5	22.2	114	21.5	120	23.3	132.3	31.8	133.1	33.8	130	26	139.5	34.6	—	—	—	—
Paradise Road	17	—	—	—	—	107.3	18.1	114.9	22.8	111.9	22.4	119.4	23.8	131.1	27.7	134.7	31.9	134.7	33.6	—	—	—	—	—	—	—	—
Keyham R.C....	27	—	—	98.3	15.4	104.7	16.8	110	18.8	110.7	18.7	111	20.5	126.5	24.5	123.9	25.6	130.9	29.6	—	—	—	—	143.5	37.2	—	—
Victoria Road..	103	101.1	18.8	101.7	16.5	106.1	17.9	112.2	21.3	113.1	21.3	117	21	125.3	26	131.5	28.8	125	30	134.7	30	132.3	30.9	160.5	45.8	—	—
Montpelier ..	22	—	—	95.5	15.6	101.1	17.8	—	—	114.3	19.5	120.3	21.8	122.9	26.9	124	22.4	128.7	25.6	139.5	30	141.9	39.4	154.3	50	—	—
St. Budeaux ..	35	99.4	16.9	96.3	15.6	108.3	20.2	106	18.8	117.9	24.9	125.1	27.2	126.3	27.7	132.5	29.2	131.1	29.7	138.3	33.6	147.9	45.5	—	—	—	—
Weston Mill ..	9	—	—	—	—	95.1	16.3	104.7	18.4	110	20.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Somerset Place	62	90.8	14.7	92.7	15.5	103.7	18.7	106.7	18.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ker Street ..	46	89.1	14	96.3	15.9	101.3	17	103.7	17.9	107.1	19.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
AVERAGE ..		92.7	15.4	96.5	15.6	102.9	17.8	108.4	19.6	111.7	20.6	115.5	22.1	123.4	25.5	128.7	27.4	131.1	29.7	137.8	31.5	141.3	36.7	147.9	41.3	149.1	41.4

The measurements and weights recorded at the different Schools may serve for a detailed investigation into the comparative physique of children attending different types of schools. Too much reliance, however, must not be placed upon these figures, the number examined in some schools being so small.

Nutrition.

	GOOD.		INDIFFERENT.		BAD.	
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
BOYS ...	1289	83	192	12·4	65	4·3
GIRLS ..	1296	87·5	118	7·9	69	4·6
	2585	85·35	310	10·15	134	4·45

In judging Nutrition there is no absolute standard, and the personal factor of the investigation may modify the results obtained; the facts, therefore, must be interpreted with due regard to these limitations.

Condition of Head and Body Cleanliness.

			PADICULI CAPITIS.		BODY CLEANLINESS.	
			Number.	Per Cent.	Number bad.	Per Cent.
BOYS ...	...	...	29	1·8	37	2·3
GIRLS ...	...	...	259	17·4	38	2·5
TOTAL ...	...	...	288	9·5	75	2·4

43 children were affected with Seborrhœa (dandruff).

Uncleanliness of Body was noted in 75 cases, or 2·4 per cent. of the total number examined. This figure probably understates the actual amount of uncleanliness, as it is understood that the unusual luxury of a bath and a set of clean clothes often precede the inspection. The only true remedy for this state of affairs would be to make baths part of the necessary equipment of Elementary Schools.

In 288 instances (9·5 per cent.) children were infected with vermin.

These variations are largely ascribed to home conditions, but partly reflects the standard of cleanliness of the schools. In the Girls' Departments improvement would follow a regulation in force elsewhere, that "all girls with hair long enough to reach the shoulders are expected to have it tied back." This simple procedure would tend to check the spread of vermin, and has other obvious advantages.

Condition of Teeth.

Age.	Number Examined.	Good.	Per Cent.	Indifferent.	Per Cent.	Bad.	Per Cent.
3—4	202	150	74.2	17	8.4	35	17.4
4—5	340	221	65	59	17.3	60	17.7
5—6	353	200	56.6	72	20.3	81	23.1
6—7	587	315	53.6	135	23	137	23.4
7—8	476	218	45.7	118	24.7	140	29.6
8—9	180	79	43.8	42	23.1	59	33.1
9—10	107	55	51.4	23	21.4	29	27.2
10—11	87	44	50.5	19	21.8	24	27.7
11—12	88	61	69.3	15	17	12	13.7
12—13	89	57	64	24	27	8	9
13—14	322	232	72	59	18.3	31	9.7
14—15	154	93	50.3	38	24.6	23	25.1
15—16	43	26	60.4	13	30.2	4	9.4
16—17	1	—	—	—	—	1	—
	3029	1751	57.8	634	20.9	644	21.3

The percentage of children requiring the services of a dentist was found to be 42.2. A number of these urgently require treatment for suppurating stumps, abscess of the jaw or other septic conditions which impair the health. The condition of the teeth was classified as "Good," "Bad," or "Indifferent." It was, however, the exception to find a child with a perfectly sound

denture, the term, "Good" being relative and applied to cases which showed less than two carious teeth, and including those in which certain teeth had already been extracted. If the importance of preserving the milk teeth were more generally realized by mothers, many of the dietetic ailments of childhood would be prevented. When the teeth are decayed, food is imperfectly masticated and bolted down along with the poisonous products from an unclean mouth. This gives rise to dyspepsia associated with nervous irritability, night terrors, poor nutrition and lowered vitality which renders the body prone to infections of a more serious nature. The dangers have in all cases been pointed out to the parent accompanying the child, and it is gratifying to find that dental treatment has been obtained in a large number of instances, many, however, either through indifference to the child's welfare or on account of poverty fail to follow the advice given, and it is for such cases that some scheme is necessary which will ensure that the child shall receive proper treatment.

Table Showing Condition of Vision.

Age.	No. examined	Satisfactory ($\frac{6}{6}$ — $\frac{6}{9}$)		Slightly Defective, ($\frac{6}{12}$)		Seriously Defective, $\frac{6}{18}$ and worse.	
		No.	Per cent.	No.	Per cent.	No.	Per cent.
6	587	575	97·9	5	·8	7	1·3
7	476	452	94·9	18	3·9	6	1·2
8	180	170	94·4	7	3·3	3	2·3
9	107	96	89·7	7	6·5	4	3·8
10	87	77	88·5	7	8	3	3·5
11	88	78	88·6	6	6·8	4	4·6
12	89	77	86·5	3	3	9	10·5
13	322	301	93·4	8	2·4	13	4·2
14	154	133	86·3	8	5·1	13	8·6
15	43	40	93	—	—	3	7·
Total	2133	1999	93·2	69	3·2	65	3·6

The number of children in whom the vision of one eye only was defective was 21 ; thus the eyesight was deficient in 155 cases or 7·2 per cent.

In a number of cases the parents were unable to buy suitable glasses and these were supplied from the fund provided by the Education Authority. During the year 24 pair of spectacles were given.

Diseases of the Eye.

STRABISMUS. 57 cases of Strabismus or "Squint" were met with ; the left eye being affected in 40 instances, the right eye in 17 ; bilateral convergent Strabismus was present in some cases. The parents do not realize the gravity of this condition, as it was the exception to find that any advice had been sought and it was difficult to arouse any interest in the matter, even when it could be actually demonstrated that the child was losing its sight in the affected eye. This is not unfrequently the case, unless treatment is resorted to at an early age.

BLEPHARITIS. 36 cases of ^{Ch}Alimentary Blepharitis were found, that is to say, 1 out of every 84 children was affected. It is a disease closely associated with poverty and dirt which a proper regard for soap and water tends to eliminate.

The following conditions were also noted :—Conjunctivitis, 6 cases ; Corneal ulceration 5 ; Nebulae 4 ; Phlyctenulae 3 ; Congenital Cataract 2 ; Nystagmus 3 ; Hordei 7 ; Blepharospasm 1.

Enlarged Tonsils.

Of the total number examined, 235, or 7·8 per cent. were found to be suffering from Enlarged Tonsils. Of these 122, or 8 per cent. were boys, and 113 or 7·6 per cent. girls.

Adenoids.

Adenoids were present in 164 cases or 5·4 per cent., 66, or 4·2 per cent. being boys, and 98, or 6·6 per cent. girls. Where operation has been performed teachers should pay special attention to breathing exercises.

Enlarged Cervical and Submaxillary Glands

The number of children with enlarged glands were 586, or 19.2 per cent. Of these 325, or 21 per cent. were boys, and 261, or 17.5 per cent. girls. For the most part the cause was obvious, dental caries or vermin in the head being present.

TABLE SHOWING COMPARATIVE INCIDENCE OF PRINCIPAL DEFECTS.

NUMBER EXAMINED.	Stoke	St. John's	York Street	St. Stephen's	Morice Town	R.N. & Military	Johnston Terrace	St. Joseph's	Ford	St. James' (Boys)	Stuart Road	St. Mary's	Paradise Road	Keyham R.C.	Victoria Road	Montpelier	St. Budeaux	Weston Mill	Somerset Place	Ker Street	
Defective Nutrition	...	11.4	17.3	15.3	16.3	17.9	14.4	12.2	16.9	8.6	10.8	13.1	27.9	3.5	27.6	14.6	17.4	5.5	6.2	21.9	16.8
Pediculi	...	—	16.6	42.3	29.3	17.2	13.3	13.4	8.7	6.5	—	9.6	29.8	23.5	25.8	16.5	13.6	8.5	6.2	17.7	9.1
Defective Teeth	...	30.2	50.7	60.3	42.1	31.1	44.8	40.9	52.6	34.1	54	41.9	49	57.1	53.1	51.3	29.6	40.7	50	34.1	28.5
Defective Vision	...	10.4	10.5	7	3	6.3	10.3	5	8	5.5	8.1	5.7	11.5	4.1	23.3	5.6	2.4	2.3	7.6	—	3.1
Enlarged Cervical Glands	8.3	14.4	25.4	23.4	10.3	18.5	22.1	20.5	14.9	18.3	20.3	16.3	7.1	21.2	37.6	9.2	14.8	56.2	14.6	23.3	
Disease of Throat and Nose	6.2	18.8	11.3	11.1	14.1	9.4	13.7	9	16.9	27.3	14.3	22.1	3.5	14.8	19.8	9.2	15	18.7	13	19.4	

Hearing.

			Good.		Indifferent.		Bad.	
			Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
BOYS	...	...	1479	95·7	29	1·8	38	2·5
GIRLS	...	...	1403	94·7	36	2·4	44	2·9
TOTAL	...	...	2882	95·15	65	2·15	82	2·7

It will be seen from this table that the number of children whose hearing is seriously affected is 82. This unfortunate result could, in most cases, have been prevented and even now be relieved by appropriate treatment. For those cases which are not amenable to treatment, and where no other defect is present, the formation of a special class would be highly desirable.

Otorrhœa.

Of 3,029 children inspected 109 were found to have discharging ears. This condition should never be neglected, leading as it frequently does to deafness, or even to a fatal result should the inflammation extend to the brain, a not infrequent sequence. The necessity for prompt treatment cannot, therefore, be too strongly urged.

			Number suffering from Discharging Ears.	Per Cent.
BOYS	...	...	57	3·7
GIRLS	...	...	52	3·5
TOTAL	...	...	109	3·6

Speech.

	Good.		Indifferent.		Bad.	
	No.	p.c	No.	p c.	No.	p.c.
Boys - - -	1500	97	28	1·8	18	1·2
Girls - - -	1453	98·1	22	1·4	8	·5
Total -	2953	97·6	50	1·6	26	·8

From this Table it will be seen that the number of children with defective speech is small, the defects principally consisting in inability to pronounce certain consonants. A number of children suffering from impediment of speech was also observed. For most of these cases breathing exercises and attention to general health would go far to effect a cure.

Mental Condition.

	Good.		Indifferent.		Bad.	
	No.	p.c.	No.	p.c.	No.	p.c.
Boys - - -	1518	98·3	24	1·5	4	·2
Girls - - -	1447	97·7	25	1·6	11	·7
Total -	2965	98	49	1·55	15	·45

Provision is made at the Special School for the education of those children who, from certain mental or physical causes, are unable to profit by the instruction given in an ordinary school.

Nervous System.

Disease of the Nervous System were noted as follows .—

Cholera ⁷⁰⁰ ...	...	...	7
Epilepsy ...	...	...	3
Infantile Paralysis ...	...	...	11
Hyperaesthesia ...	...	...	3
Cephalagia ...	...	...	6
Hysteria ...	...	...	1

Respiratory System.

The diseases found affecting the lungs were :—

Tuberculosis	-	11 or .36	per cent. of the total number examined.
Bronchitis	-	33	— " " "
Bronchial Catarrh	64 „	2.1	„ „ „ „
Asthma	- - -	1	„ „ „ „

Deficient expansion was noted in 6 boys and 12 girls, it was in most instances associated with postnasal growths.

Diseases of the Heart and Circulatory System.	BOYS.		GIRLS.		TOTAL.	Per cent.
	No.	Per cent.	No.	Per cent.		
Anaemia ...	37	2.3	60	4	97	3.2
Mitral regurgitation	13	.8	10	.6	23	.7
Mitral Stenosis ...	—	—	3	.2	3	.1
Displacement of Apex beat ...	27	1.7	7	.4	34	1.05

Rickets.

128 children, or 4·2 per cent. showed markedly the signs of Infantile Rickets, a condition brought about largely by the ignorance of ~~methods~~^{mothers.} in the proper feeding of their infants.

The head was the part chiefly affected in 15 cases.

The chest	„	„	83	„
The legs	„	„	30	„

Deformities.

Scoliosis (lateral curvature of the spine) was found in 7 cases.

Kyphosis, or general curving of the spine with its convexity backwards was found in 3 cases.

Lordosis, or curving of the spine, with its convexity forwards, was found in 1 case.

Systematic drill and suitable exercises, etc., were recommended.

2 children had Talipes Equinovarus (a complicated variety of club-foot), and 1 Talipes Valgus (flat foot) in a marked degree.

Genu Valgum, or knock-knee, was observed in 13 cases.

Congenital Dislocation of the Hip	„	2	„
„ Malformation of 1 limb	„	3	„

Supernumary Thumb was observed in 1 case.

Tuberculosis.

Cases of Tuberculous Disease were found as follows :—

Lungs	...	...	...	11
Osseous	...	...	...	7
Glandular	...	...	...	4
Other forms	...	...	...	1

23

or ·75 per cent.

Contagious Diseases.

Cases of Contagious Disease and Scarlet Fever in a desquamating condition were :—

Ringworm	20	} 1·6 per cent.
Impetigo	...	...	23
Scabies	...	...	4
Scarlet Fever	...	...	2

These were ordered to be excluded from school.

Miscellaneous Affections.

Goitre	...	...	...	...	14
Lupus	...	...	...	...	1
Eczema	...	...	...	...	5
Urticaria	...	...	...	...	2
Herpes Zoster	...	...	...	...	2
Naevi	...	...	...	...	5
Sebaceous Cysts	...	...	...	...	6
Scars (i) from injury	...	...	...	...	32
(ii) from old abscess	...	...	...	...	12
Septic Sores	...	...	...	...	18
Lipoma	...	...	...	...	1
Stomatitis	...	...	...	...	1
Nasal Polypi	...	...	...	...	3
Hypertrophied Turbinate Bones	...	...	...	...	4
Chronic Nasal Catarrh	...	...	...	...	35
Old Fractures	...	...	...	...	5
Congenital Syphilis	...	...	...	...	2
Hutchinson's Teeth	...	...	...	...	2
Gastritis	...	...	...	...	4
Incontinence of Urine	...	...	...	...	6
Retained Testicle	...	...	...	...	3
Phimosis	...	...	...	...	4
Hernia (i) Inguinal	...	...	...	...	6
(ii) Umbelical	...	...	...	...	8
Excessive number of Warts	...	...	...	...	8
Hare-Lip	...	...	...	...	3

In conclusion, I desire to thank the Chairman (His Worship the Mayor), whose continued interest and active support in the whole scheme of inspection have enabled us to carry out the work so successfully.

I am also greatly indebted to the Education Secretary (Mr. Crang) for much valuable help, especially in ascertaining the social and economic circumstances of the parents of those children requiring clothing, boots, glasses, etc. ; and to the Head Teachers, generally, whose assistance given in such matters as dressing and undressing children during the inspection has saved a considerable amount of time.

I am, Mr. Chairman and Gentlemen,

Yours obediently,

O. HALL,

School Medical Officer.

INDEX.

SANITARY.

Area	...	...	...	...	...	8
Articles Disinfected at Borough Hospital	...	...	...	...	...	65
Bakehouses	...	...	...	...	...	82
Bacteriological and Chemical Laboratory	...	...	...	...	60—61	
Births and Birth-Rate	...	...	...	...	...	8
Borough Hospitals	...	...	...	...	...	59
Cancer	...	...	...	...	58—59	
Chart showing weekly Notifications of Infectious Diseases	...	...	...	...	to face 47	
Cleansing and Refuse Disposal	...	...	...	...	...	76
Cowsheds	...	...	...	...	82—83	
Deaths and Death-Rates	...	...	...	...	8—9	
Deaths—Causes of, and Ages at	...	...	...	...	14—43	
Diarrhoea or Zymotic Enteritis	...	...	...	...	...	54
Diphtheria	...	...	...	...	...	52
Diseases of Animals Act	...	...	...	...	...	81
Density of Population	...	...	...	...	...	8
Education Acts	...	...	...	...	...	66
Enteric Fever	...	...	...	...	...	51
Factory and Workshops Acts	...	...	...	...	...	79
Food and Drugs Acts	...	...	...	...	...	83
General Sanitary (Summary)	...	...	...	...	...	75
Health of the Staff	...	...	...	...	...	60
House Inspection	...	...	...	...	...	74
Housing of the Working Classes Act, 1890—Part II.	...	...	...	...	...	77
Houses built during the year	...	...	...	...	...	78
Infantile Mortality	...	...	...	...	...	9
Infectious Diseases	...	...	...	...	...	47
„ „ method of control	...	...	...	...	49—50	
Introduction	...	...	...	...	5—6	
List of Committee and Officials	...	...	...	...	...	3
Meat Inspection	...	...	...	...	...	81
Midwives Act, 1902	...	...	...	...	67—68	
Offensive Trades	...	...	...	...	...	82
Piggeries	...	...	...	...	...	81
Population	...	...	...	...	7—8	
Puerperal Fever	...	...	...	...	...	50
Rainfall	...	...	...	...	71—72	
Scarlet Fever	...	...	...	...	...	53
Sewage Disposal	...	...	...	...	73—74	
Slaughter Houses	...	...	...	...	...	81
Small Pox	...	...	...	...	...	50
Still-Births	...	...	...	...	...	68
Table I.—Distribution of Births	...	...	...	...	...	10
„ II.—Distribution of Deaths	...	...	...	...	...	10
„ III.—Vital Statistics of whole district during 1909 and previous years	...	...	...	...	...	11
„ IV.—Infantile Mortality (causes of deaths under 1 year of age)	...	...	...	...	12—13	
„ V.—Causes of, and Ages at Death	...	...	...	...	14—43	
„ VI.—Showing Relative Proportion of Deaths from Principal Diseases	...	...	...	...	...	44
„ VII.—Number of Births and Deaths of Infants under 1 year during 1909 and 10 previous years	...	...	...	...	...	45

INDEX— *continued.*

Table VIII.—Comparative Table, showing Birth-Rate, Deate-Rate, and Analysis of Mortality in 1909	...	46
„ IX.—Infectious Disease cases notified during 1909	...	48
„ X.—Enteric Fever	... ..	51
„ XI.—Diphtheria	... ..	52
„ XII.—Scarlet Fever	... ..	53
„ XIII.—Deaths from Zymotic Enteritis and Diarrhoea	...	54
„ XIV.—Deaths from Phthisis and other Tubercular Diseases	...	57
„ XV.—Cancer (showing Location of Disease)	... ..	58—59
„ XVI.—Showing number of cases removed to Hospital from each Locality	... ..	62
„ XVII.—Cases incorrectly diagnosed	... ..	63
„ XVIII.—Showing Admissions into Hospital during the year	...	64
„ XIX.—Measles and Whooping Cough	...	66
„ XX.—General Sanitary Work	... ..	75
„ XXI.—Factories and Workshop Act : 1—Inspection.	...	79
„ XXII.— „ „ „ 2—Defects Found	...	79
„ XXIII.— „ „ „ 3—Other Matters	...	80
„ XXIV.—Details of Samples taken (Food and Drugs Acts)	...	84
„ XXV.—Adulterations and Result of Actions taken	...	85
„ XXVI.—Prosecutions and Fines inflicted	... ..	86
Training of Nurses	... ..	60
Tuberculosis	... ..	55—56
Vital Statistics (Summary)	... ..	7
„ of whole district during 1909	... ..	11
„ previous years	... ..	11
Water Analysis	... ..	70
Water Supply	... ..	68—69
Zymotic Death-Rate	... ..	9

EDUCATION.

Adenoids	... ..	105
Boots and Clothing	... ..	96—97
Contagious Diseases	... ..	111
Deformities	... ..	110
Enlarged Glands	... ..	106
Eye (Diseases of)	... ..	105
Head and Body Cleanliness	... ..	102—103
Hearing	... ..	107
Introduction	... ..	93—94
List of Committee and Officials	... ..	91
Mental Condition	... ..	108
Miscellaneous Affections	... ..	111
Nervous System	... ..	109
Nutrition	... ..	102
Otorrhoea	... ..	107
Personal History	... ..	96
Respiratory System	... ..	109
Rickets	... ..	110
Speech	... ..	108
Tables showing Height and Weight of both sexes	... ..	98—99
„ „ „ at different Schools	... ..	100—101
Table showing number of Children examined	... ..	95
Teeth	... ..	103—104
Tonsils	... ..	105
Tuberculosis	... ..	110
Vision	... ..	104—105